

A PLAN FOR INCORPORATING CAREER EDUCATION COMPONENTS
INTO THE GENERAL EDUCATION PROGRAM OF
FLORIDA COMMUNITY JUNIOR COLLEGES

By

HELEN VIRGINIA McLEAN

A DISSERTATION PRESENTED TO THE GRADUATE
COUNCIL OF THE UNIVERSITY OF FLORIDA IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF EDUCATION

UNIVERSITY OF FLORIDA
1974

Copyright

by

Helen Virginia McLean

1974

ACKNOWLEDGMENTS

The writer wishes to acknowledge the assistance and encouragement of many people, but especially those who served as the supervisory committee. Since appreciation is extended to my chairman, Dr. C. Glen Hass, for his invaluable suggestions, criticisms, and encouragement during my doctoral program; also to Dr. James L. Wattenbarger and Dr. Kenneth C. Christiansen for their unfailing support and guidance.

A special note of thanks is extended to my mother, to my sisters and brothers, and to the late Ralph Fendall for their love and devotion. Too, the writer is extremely grateful to the Clarke family and to Godfather for their patience, support, and attentiveness.

A note of appreciation is due to those who responded to the request of the writer for evaluations of the instructional guides: Dr. Johnnie Ruth Clarke (St. Petersburg Junior College), Dr. George Mehallis (Miami-Dade Junior College), Dr. Joseph T. Nerden (North Carolina State University at Raleigh), Dr. John E. Roueche (The University of Texas at Austin), and Mr. Kenneth G. Skaggs (American Association of Community Junior Colleges). Also, my sincere appreciation is extended to the Deans who participated in the interviews.

A further expression of appreciation is extended to the faculty, students, and staff of the College of Education.

Finally, the writer wishes to acknowledge financial support from St. Petersburg Junior College, an EPDA - E Graduate Fellowship, and the United Educators, Inc., of Tangley Oaks Foundation.

TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	iii
ABSTRACT	viii
 Chapter	
I. INTRODUCTION	1
<i>Statement of the Problem</i>	4
<i>Need for Study</i>	5
<i>Definitions</i>	6
<i>Career Education—A Discussion</i>	6
<i>Postulates and Assumptions</i>	9
<i>Limitations and Delimitations</i>	11
<i>Sources of Data and Instrumentation</i>	11
<i>Organization of the Dissertation</i>	12
II. PERSPECTIVES FROM THE LITERATURE	14
<i>Introduction</i>	14
<i>The Development and Nature of</i>	
<i>Career Education</i>	14
<i>A Philosophy for Career Education</i> ...	17
<i>Concepts of Career Education</i>	19
<i>Components of Career Education</i>	20
<i>Models of Career Education</i>	21
<i>The Growth and Functions of the</i>	
<i>Community Junior College</i>	26
<i>Student Characteristics</i>	28
<i>Career Education and the Community</i>	
<i>Junior College</i>	31
<i>Career Education in Florida</i>	
<i>Community Junior Colleges</i>	34
<i>Current Theories of Career Development</i> .	36
<i>Trait-Factor Theories</i>	36
<i>Sociology and Career Choice</i>	38
<i>Developmental Self-Concept Theory</i> ...	41
<i>Vocational Choice and Personality</i>	
<i>Theories</i>	43
<i>Summary</i>	47

TABLE OF CONTENTS—Continued

Chapter		Page
III.	PROCEDURES IN THE STUDY	49
IV.	INSTRUCTIONAL GUIDES	59
	<i>Introduction</i>	59
	<i>Instructional Guide for Use of</i>	
	<i>Reference Materials</i>	61
	<i>Rationale</i>	62
	<i>General Objectives</i>	63
	<i>Behavioral Objectives</i>	64
	<i>Preassessment</i>	64
	<i>Content</i>	64
	<i>Learning Activities</i>	70
	<i>Post Assessment</i>	72
	<i>Instructional Guide for Career</i>	
	<i>Choice-Selection Skills</i>	72
	<i>Rationale</i>	74
	<i>General Objectives</i>	75
	<i>Behavioral Objectives</i>	76
	<i>Preassessment</i>	76
	<i>Content</i>	77
	<i>Learning Activities</i>	82
	<i>Post Assessment</i>	84
	<i>Instructional Guide for Occupational</i>	
	<i>Cluster Concept</i>	85
	<i>Introduction</i>	85
	<i>Rationale</i>	87
	<i>General Objectives</i>	88
	<i>Behavioral Objectives</i>	89
	<i>Preassessment</i>	90
	<i>Content</i>	90
	<i>Learning Activities</i>	94
	<i>Post Assessment</i>	97
V.	EVALUATION OF INSTRUCTIONAL GUIDES	99
	<i>Strengths and Weaknesses</i>	99
	<i>Postulates and Assumptions</i>	101
	<i>Value of Instructional Guides</i>	102
	<i>Feasibility</i>	103
	<i>Summary</i>	103
VI.	SUMMARY AND CONCLUSIONS	105

TABLE OF CONTENTS—*Continued*

Appendix	Page
A. FLORIDA PUBLIC COMMUNITY JUNIOR COLLEGES WHOSE CATALOGS WERE SURVEYED FOR INFORMATION RELATIVE TO CAREER EDUCATION PROGRAMS	112
B. LETTERS AND INSTRUMENT USED IN VISITATIONS AND EVALUATION OF INSTRUCTIONAL GUIDES	114
C. SOURCES OF SIMULATION GAMES AND DIAGNOSTIC TESTS	122
D. AN ANALYSIS OF FIFTEEN OCCUPATIONAL CLUSTERS IDENTIFIED BY THE U. S. OFFICE OF EDUCATION	127
BIBLIOGRAPHY	153
BIOGRAPHICAL SKETCH	162

ABSTRACT OF DISSERTATION PRESENTED TO THE GRADUATE
COUNCIL OF THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF EDUCATION

A PLAN FOR INCORPORATING CAREER EDUCATION COMPONENTS
INTO THE GENERAL EDUCATION PROGRAM OF
FLORIDA COMMUNITY JUNIOR COLLEGES

By

Helen Virginia McLean

June, 1974

Chairman: Dr. C. Glen Hass

Major Department: Curriculum and Instruction

Career education, a comprehensive, sequentially developed educational plan which is available to all youth and adults at all grade levels in the public school system, has attracted a great deal of attention in recent years. But the role of the community junior college has not been defined as clearly as the roles of elementary and secondary schools. At this point, the postsecondary level, students should have participated in the career awareness, career exploration, and career orientation phases of the comprehensive school-based model. However, until the program is implemented at all educational levels, many students, especially those in higher education, will not have

benefited from these specific phases. Therefore, the purpose of this study is to develop a plan for incorporating career education components into the general education program of Florida community junior colleges.

The background is reported in terms of the literature on the nature and development of career education, on the growth and function of the community junior college, on current theoretical career development processes, and on current career development programs in the public community junior colleges in Florida. This information provided the bases on which the plan is developed. The plan is in the form of three instructional guides which suggest to instructors ways and means of how specific phases of the career education concept, namely career awareness, self-awareness, educational awareness, and economic awareness, may be incorporated into any course of study.

Using a module format for easy implementation, the general subject area of the three guides centers around the occupational cluster concept. Each guide contains an introduction, a rationale, general objectives, behavioral objectives, content material, preassessment, learning activities, and post assessments for the occupational cluster concept, career choice-selection skills, and the use of reference materials.

The instructional guides were evaluated by a panel of five community college educators who indicated that the

guides focused attention upon an area of information that is greatly needed and that will meet an urgent need in the career education field. They concurred, also, that they were based on valid postulates and assumptions, are well done as regards to content and activities, are feasible, and provide an avenue for incorporating career education components into the general education curriculum of the community junior college.

On the basis of this project, the panel of evaluators concurred that the community junior college system presently possesses an operating framework to incorporate career education components into its general education curriculum and that its infusion is not only timely but a necessity.

The primary goal in developing this plan was to provide suggested activities which could be used by general education teachers. Also, since career education is a new educational concept, this study may serve as resource material for instructors who are not knowledgeable in this area. The data presented are not all-inclusive; they focus only on some of the important career education elements. Further development and research is needed to insure that the benefits of career education are provided for all youth and adults.

CHAPTER I

INTRODUCTION

The contemporary community junior college is a unique American institution which has developed over the past seventy years to serve specific purposes in higher education. Originally conceived as a "junior" college, an institution to provide academic work paralleling the first two years of university education, the institution has gradually broadened the scope, breadth, depth and quality of the curriculum until it holds the promise of making postsecondary educational opportunities available to all those who feel that they can profit from this opportunity.

By the middle of the twentieth century, the philosophy of the community junior college had expanded from the earlier, restricted beginnings. The philosophical bases and principles underlying the community college (Thornton, 1972, 32-44; Blocker *et al.*, 1965, 32-32; Carnegie Commission on Higher Education, 1970, 15-24; Medsker and Tillery, 1971, 53-74) are summarized as follows:

1. To make higher education available to qualified students of all ages, of all social classes, of all varieties of abilities.
2. To develop sufficient variety of curricula to meet educational needs.

3. To provide counseling and guidance services to help students choose appropriately from available offerings.
4. To devote concerted attention to effective teaching.
5. To encourage the highest levels of achievement of its students.
6. To become a center of community life by encouraging the use of college facilities and service by community groups.

The community junior college, in many cases, has achieved its purposes. However, in two areas—the development of sufficient variety of curricula to meet educational needs and the provision of counseling and guidance services to help students choose appropriately from available offerings—it has fallen short of its commitment to make the benefits of higher education a reality to the most diverse population of youth and adults who matriculate to seek the advantages of its "open-door" philosophy.

Christopher Jencks and David Riesman (1968), in discussing the experiences and courses that the community colleges have been able to offer the variety of students, stated:

While the community college may in principle exist to serve new sorts of students and new sorts of programs, most faculty and administrators are still primarily interested in traditional academic programs and in students who will eventually transfer to a four-year college. (p. 487)

Another critic is William Moore, Jr. In a belligerent attack on the curriculum of the community college, he states that "thousands of students get an inadequate

education or no education at all in an institution purported to be innovative enough to serve all students" (Moore, 1970, ix). He further contends that the term "open-door" is hypocritical rhetoric. Instead of providing programs in which all students, regardless of their level of achievement, can receive the best education possible commensurate with their needs, their efforts, their motivation, and their abilities, the majority of community colleges develop the traditional programs and curricula which prepare students to transfer to the senior institution or to go directly into employment (Moore, 1970, 5).

Further support to the contention that the community colleges have failed to provide adequate programs is given by Arthur M. Cohen and James W. Reynolds. Cohen states that the community college, charged with the educational task of developing unique curricula and instructional programs has not yet fulfilled this obligation (Cohen, 1969, xviii). Reynolds states that the "relationship between the implications of stated purposes for the educational program and the program itself is not always consistent. Most practices currently in vogue were designed by and for universities . . . , but community colleges must eventually develop their own procedures if they are to achieve their purposes" (Reynolds, 1966, 110). According to John E. Roueche, the philosophy and practice of the community college are at odds.

The open-door is merely an admissions statement because a large percentage of students who seek the community college experience do not persist long (Roueche, 1972, 6).

If the community college is to fulfill completely the intents of its philosophy and to become the route through which every citizen has the opportunity to attain his maximum potential, it must continuously evaluate and revise its curricula to meet societal changes and educational needs of its students.

The focus of this study, therefore, is to develop a plan whereby career education components might be infused into the general education program of the community junior college.

Statement of the Problem

The problem of this study is to develop instructional guides which may be utilized by community junior college instructors to incorporate the career education concept into the general education program at the community junior college. In attempting to devise the guides, attention will be given to the following concerns:

1. What is the rationale for career education?
2. What are the components of career education at the community junior college level?
3. What is being done presently to incorporate these components of career education in selected public community junior colleges in Florida?

4. What are the processes and procedures which will facilitate infusing career education into the general education curriculum?
5. What types of instructional guides may be developed to incorporate career education into the general education curriculum?

Need for Study

The main purpose of this dissertation is to develop a plan to infuse career education components into the general education program of the community junior college. An examination of the changing nature of society and the functions and responsibilities of the community college indicate that the community college is not fulfilling completely the intents of its philosophy. The program choices of those who participate in the community college experience reveal that a large percentage of the students have not developed an adequate awareness of self-characteristics and interpersonal relationships. Many have not acquired an awareness of occupational choices and requisites nor have they developed the capacity to make and to execute decisions. A large number of students, also, do not possess sufficient competencies in self-management and the management of knowledge which are needed to more readily cope with the rapidly changing nature of our society. It is the goal of this dissertation, therefore, to develop a means by which these awareness skills may be incorporated throughout the general education curriculum.

Definitions

Career cluster: A group of occupations having closely related characteristics.

Career education: A comprehensive, sequentially developed educational plan at all grade levels which provides cumulative and integrated experiences designed to assist all students in the development of skills in career awareness, in self-awareness, and in educational awareness as well as an understanding of the economic structure so that more meaningful career choices may be made.

Components: The elements, skills, and outcomes of a particular concept.

Instructional guides: Short, instructional packages aimed at presenting the instructor with ideas and means by which the career education components may be incorporated into class activities.

Occupational cluster: Same as career cluster.

Open-door policy: Any person who is a high school graduate, who possesses a high school equivalency diploma, or who is an adult citizen (over eighteen) is eligible to attend the community college.

Rationale: The underlying idea of a particular concept.

Career Education—A Discussion

Defining career education is a difficult task.

The term has not been utilized long enough to have obtained a standardized, accepted meaning, and the concept is so broad that it can be "all things to all people."

There are nearly as many definitions as definers of the term. While the many definitions do not conflict, they do have different emphases. The United States Office of Education (1972) defines it as:

The total effort of public education and the community aimed at helping all individuals to become familiar with the values of a work-oriented society, to integrate these values into their personal value system, and to implement these values into their lives in such a way that work becomes possible, meaningful, and satisfying to each individual. (pp. 2-3)

Hoyt *et al.* (1972) define career education as:

. . . the total effort of the community to develop a personally satisfying succession of opportunities for service through work, paid or unpaid, extending throughout life. (p. 1)

The U.S. Office of Education's definition emphasizes education and values; Hoyt *et al.* (1972) stress the career; both underscore the ethics of work. Goldhammer and Taylor (1972) view it as a means:

. . . to capacitate individuals for their several life roles: economic, community, home, avocational, religious and aesthetic. It recognizes the centrality of careers in shaping our lives . . . (it) should be viewed as lifelong and pervasive, permeating the entire school program and even extending beyond it. (p. 6)

Gordon, examining the various approaches used to describe career education, sees it as being more concerned with facilitating the process of living and less with the preparation for making a living, more with the development of a meaningful life than with earning a good livelihood. "Career," according to Gordon, "is the course by which one develops and lives a responsible and satisfying life" (Gordon, 1973, 59).

Marland, formerly Assistant Secretary of Education, defines career education as a means of blending academic

and occupational programs in an effort to assist all learners at all levels of instruction in their quest for productive careers and rewarding lives as well as a means of removing the assumed distinction between academic and occupational learning (Marland, 1972b, 35-38).

No single approach to a definition of career education is adequate. All the definitions cited reinforce each other. Running through each description, however, is the idea that career education is public education, available to the public and offering choices to the public.

For the purpose of this study, career education is defined as a comprehensive, sequentially developed educational plan which is available to all youth and adults at all grade levels in the public school system. Inherent in its meaning are learning opportunities which provide for a knowledge of career choices and requisites, an understanding of the occupational structure of the economy, the development of competencies in self-management and the management of knowledge, and the opportunity to prepare for gainful employment. Career education is neither a substitute for some phase of education nor an appendage to existing curricula; it is an integral part of all general education programs.

Postulates and Assumptions

This study proposes to develop a plan whereby career education components may be incorporated into the general curriculum of the community junior college. Although there is a career education structure emerging at this educational level, there has not been an attempt to infuse its concepts into the core curriculum. This study is based on seven postulates:

1. The community junior college's educational approach is aimed at serving the diverse needs of its community.
2. The open-door admission policy provides for entry of all youth and adults and seeks out nontraditional students.
3. The community junior college occupational programs are postulated on specialization at the beginning of one's studies.
4. The community junior college combines general education and occupational education.
5. The community junior college provides increased availability of guidance and counseling services.
6. The community junior college offers courses from simple job skills to associate degree programs.
7. The community junior college provides more flexible approaches to learning than other postsecondary institutions.

On the basis of these postulates, the following assumptions are made:

1. Students at the community junior college should be provided with the opportunity to develop skills which will help them to analyze their own interests and goals.

2. Students should be provided with experiences which help them to understand the interrelationship of occupations and the importance of all occupations.
3. Students should be equipped with adequate job seeking, job placement, and job advancement skills.
4. Students should be provided with the means by which they can develop and maintain a positive attitude toward themselves, toward other persons, and toward their environment.
5. Students should be provided with opportunities to develop decision-making skills better to cope with the changing nature of society.
6. Students should be given opportunities which help them to perceive relationships between education and life roles.

With these assumptions as a further basis for the infusion of career education components into the general education curriculum, it is further assumed that such a plan could help the student succeed both as a student and as a productive member of society. The inclusion of well-structured educational guides which are flexible, orderly, and relevant will help in bringing about the following sequential changes:

1. Students should develop a positive attitude about themselves and about others.
2. Students should become aware of the wide variety of career options related to their interests and the kinds of skills required for various occupational clusters.
3. Students should acquire skills which permit them to define problems, to analyze and to communicate findings, and to plan and implement effective performance in academic, social, economic, political, and artistic options.

4. Students should develop the knowledge and skills which will facilitate their ability to cope with the ever changing nature of the total society.

Limitations and Delimitations

No effort is made to devise a plan to incorporate career education components into a particular institution's curricula, because the writer feels that such specifics are the sole responsibility of each community junior college. This study attempts to organize the research on the current emphasis on career education and to communicate these results to community junior college curriculum specialists and instructors in the form of instructional guides. Thus, the community college's personnel will be provided with a frame of reference for assessing and changing their curricula to meet more adequately the needs of all the students.

Sources of Data and Instrumentation

The sources of data and instrumentation for this dissertation include:

1. A review of the literature relating to:
 - a. The nature and development of career education
 - b. The growth and functions of the community junior college
 - c. The career education process and the community college
 - d. The current career development theories
 - e. The current career education programs in Florida community junior colleges as indicated by college catalogs

2. Personal conferences with the Deans of Academic Affairs at selected public Florida community colleges to examine and discuss the nature of current programs.
3. An examination of what instructional guides have been developed by the Curriculum Laboratory of Career Education, Department of Education, State of Florida.
4. An evaluation of the instructional guides will be sought from a panel of leaders in the community junior college field.

Organization of the Dissertation

This study will be presented in six chapters. The first chapter, "Introduction to the Problem," has presented an introduction delineating the role and purposes of the community junior college and the extent to which it has succeeded in providing for the needs and interests of all who seek the community college experience. Included, also, in Chapter I is a statement of the problem, need for the study, definitions, postulates and assumptions, limitations and delimitations and sources of data and instrumentation.

Chapter II, "Perspectives from the Literature," will present a review of the literature which concerns the nature and development of career education and the role of the community junior college in the career education process. The current theoretical findings relevant to the career development process will be presented. Included, also, will be a discussion of current career development programs which exist in the public Florida community colleges.

Chapter III, "Procedures in the Study," will give the results of the visitations with the Deans and outline the procedure to be used in developing the guides for infusing some career education components into the general education curriculum of the community junior college.

Chapter IV, "Instructional Guides," will present three instructional guides which have been developed as a result of this study and which may be used to incorporate career education components into the general education program.

Chapter V, "Evaluations of Instructional Guides," will present the result of the evaluations of the instructional guides by five leaders in the community junior college field.

Chapter VI, "Summary and Conclusions," will present the generalizations and conclusions which synthesize the literature review and the instructional guides. In addition, there will be a discussion of the feasibility of implementing such guides into the general education program of the community junior college.

CHAPTER II

PERSPECTIVES FROM THE LITERATURE

Introduction

A review of the literature on career education revealed that there is limited material specifically related to career education and the community junior college. Because of this, this perspective is presented in four sections in order to provide an overview of the career education concept and the role of the community junior college in the total process. Section one presents a review of the literature on the development and nature of career education. Section two presents the growth and function of the community junior college. Attention is also given to student characteristics and the role of the community college in the career education process. Section three discusses current career development programs in selected public Florida community junior colleges, and section four treats current theoretical findings relevant to the career development process.

The Development and Nature of Career Education

The emergence of a concept of career education has become a nationwide concern during the past three years.

This concept, which represents an approach to learning that provides expanded options for students in school and renewal opportunities for those who have stopped school or are employed, has its foundation in the history of the American educational process, the technological system of contemporary society, and the projected needs of the future.

Significant elements of the career education concept have been a part of major statements of goals for American education. The 1918 *Seven Cardinal Principles of Secondary Education* list vocational efficiency, good citizenship, and command of the fundamental processes as objectives of education. The Educational Policies Commission of the National Education Association (1938) classified the objectives as self-realization, human relationships, economic efficiency, and civic responsibility. In 1947, the Commission on Life Adjustment Education for Youth sought ways, means, and devices to equip all American youth to live democratically with satisfaction to themselves and with profit to society as home members, workers, and citizens. Emphases were placed on self-realization, human relationship, economic efficiency, and civic responsibility. The needs of youth, according to the Educational Policies Commission (1944), included the development of saleable skills and understandings and attitudes of economic life. A subsequent statement in 1961 by the Commission cited the development of rational thinking and the teaching of the fundamental processes as the central purpose of education.

Proponents of career education identify various influences which underscore the development of this concept. Swanson and Venn perceive it as another state in the developmental history of vocational education. Too, they cite the international movement toward career preparation and this country's national and state leadership roles in identifying a defensible conceptual base and in funding exemplary projects as important determinants (Swanson, 1972, 108-109; Venn, 1973, 11-15). Gordon identifies the knowledge explosion, the emerging transition from an industrial society to a technological, cybernetic society, and the emergence of radical changes in political awareness, patterns of social organization, explicit values and economic potential as three changes in the current social order which have influenced the career education process (Gordon, 1973, 56-57).

Thus having a background imbedded in the national goals and in the developmental pattern of vocational education and the social order, career education has developed into a force which challenges traditionalism and permanency and advocates a direction of change to meet the rapidly changing economic, cultural, social, and educational forces of the future.

A Philosophy for Career Education

In any society, one of the basic functions of education is the transmission of and the induction of its members into its culture. In the United States, education implies induction into the American culture. This encompasses, according to McMurrin, the institutions of American society, the achievement of literacy and critical intelligence, and the cultivation of the individual's physical and intellectual capabilities and artistic and moral sensibilities (McMurrin, 1973, 20). Inherent in America's culture is the "Puritan" or the "work ethic." More than any other, this factor has had the greatest impact on the style of our social institutions and on the value system of our culture. The main structure of our value system is determined greatly by the work that we do. Although modern technology has increased the amount of leisure time available to Americans, citizens are still expected to participate in meaningful, worthwhile activities, whether it be vocational or avocational.

However, the traditional view of work is shifting. Changing conditions in our society have created an entirely new environment—new jobs, new careers, new national objectives, and new social, economic, and political dilemmas. The work ethic, which stressed pride in workmanship and individual accomplishment, is being challenged by enormous changes in the economic and

social systems. The rise of disadvantaged, culturally and ethnically different peoples, the population explosion, the changing moral standards, the unstable role of the family unit, the generation and communication gaps have resulted in disillusionments which have permeated the consciousness of American society (Hass *et al.*, 1970, 3-8). This country has pursued economic growth until the average American has available to him individually from twenty to forty times the goods and services available to the average Asian, African, or Latin American. Yet to 25 million this affluence has no meaning (Hoyt *et al.*, 1972, 18). Occupations are becoming more complex and are requiring greater skill; yet during 1970-71, 2.5 million young people left formal education without skills adequate to enter the labor force at a level commensurate with their desires (Goldhammer and Taylor, 1972, 3-4). These problems have resulted in apathy, alienation, and indifference and have manifested themselves in the form of riots, the drug culture, liberation movements, high rates of unemployment, and a counterculture which rejects the main structure of our value system.

Work will continue to function as a central and determining element of our society. Therefore, career education, in addition to preparation in the skills and knowledge needed for some line of work, must include the development of artistic and moral sensibilities and qualities of intellect that encompass total living. Education

must become a continuous, unending process that ensures employment, satisfaction in work performance, and be rewarding to every individual.

Concepts of Career Education

To achieve a career-oriented educational system, the proponents of career education advocate the following principles: (1) career education is a comprehensive, educational program focused on careers which begins with the entry of the child into a formal school program and continues into the adult years; (2) career education involves all students, regardless of their vocational plans; (3) career education involves the entire school program and unites the schools, communities, and employers in a cooperative, educational venture; (4) career education infuses the school program rather than provides a program of curriculum tracks; (5) career education provides the student with information and experiences representing the entire world of work; (6) career education supports the student from initial career awareness to career exploration, career direction-setting, career preparation and career placement, including follow-up and reeducation if necessary; and (7) career education is not a synonym for vocational education; vocational education is an integral and important part of a career education system.

From these concepts it is obvious that career education is not conceived as a single time segment of the educational process. It encompasses all levels and is included as a basic part of all education. It provides for successful career performance as its specific objective; performance which is practical, achievable, and measurable. It also offers accountability because its objectives are clearly defined and its success or failure can be measured in employment, earnings, and job satisfaction.

Components of Career Education

Hoyt and others identify five basic components of career education: (1) Every classroom teacher in every course at every level will emphasize, when appropriate, the career implications of the substantive content being taught. (2) Vocational skill training will provide students with specific competencies required for successful entry, or reentry, into occupational world. (3) Through active cooperation and participation of both school and nonschool personnel, a variety of cognitive and experiential means will be employed to help students understand and reflect upon the values of a work-oriented society. (4) The learning environment will include both classroom and "real world" activities. (5) The interrelationships among the home, the family, the community, and the occupational society are recognized and capitalized upon (Hoyt *et al.*, 1972, 7-10). In the development and implementation of

career education programs, a variety of methods must be used to accommodate each program, but each must carefully consider and incorporate all components.

Models of Career Education

Currently, four career education models are being tested in various places throughout the United States. The one which is being developed for the public school system is known as the comprehensive school-based model. This model requires different objectives at each educational level. Four phases which have been incorporated into the comprehensive career education program are: (1) Career Awareness (grades K-6) develops an awareness of the personal and social significance of work; (2) Career Exploration (grades 7-8) provides exploration—observation experiences for all students through field trip, "hands-on" and simulated experiences; (3) Career Orientation (grades 9-10) offers a more in-depth exploration and beginning skill competencies in selected careers and career areas, and (4) Acquisition of Specific Career Competencies (grades 11-12) provides intensive preparation in career objectives of the student's choice. A comprehensive design to incorporate these components into all disciplines would provide learning opportunities in the areas of attitude development, career awareness and orientation, career exploration, and career preparation (Herr and Cramer, 1972, 74-86; Meyer, 1972, 5-12).

Attitude development activities would provide experiences that would help the student to analyze his own needs, abilities, and interests, to develop and maintain a positive attitude toward himself, toward others, and toward his environment, and to enjoy the feeling of success as he attains adequate job seeking and job advancement skills. Activities would be provided to understand the need for work and the importance of all legitimate occupations. Also, he would learn to adapt to new situations, to acquire decision-making skills and to accept personal responsibility for decisions.

Career awareness and orientation activities would provide opportunities for the student to become aware of and to acquire knowledge about the total spectrum of careers. As he explores career clusters, the student develops a very broad awareness of the full range of career options in the world of work. Social, communications, and occupational preparation skills are emphasized as the student becomes exposed to the world of work.

The career exploration phase is generally the pivot at which the student moves into a narrower career preparation area. He selects for further study a limited number of career areas which fit his needs and interests and correlates them with his academic work. In addition, activities such as in-depth research in a career area of

personal interest and hands-on, short-term experiences in various occupational areas are made available to the student.

The career preparation phase would provide each student with minimum entry-level competencies in his chosen occupational field. Specific skill training needed for job entry may be made available at the secondary and/or post-secondary level. Students planning to seek employment immediately after leaving high school would be provided in-depth occupational preparation in a job cluster area. The preparation phase also provides for the needs of adults in the community who wish to pursue additional training for their present occupation or new training for a new occupation.

The result of the comprehensive school-based model of career education programs in the elementary and secondary schools should be the better preparation of students to enter higher education. Students will have had an orientation to the world of work, the dignity of work, the occupational opportunities available to them, and some intensive preparation in the field of their choice. This preparation would include some work experience and personal contact with the actual work environment. Too, improved counseling would contribute to the preparation of the student for higher education. However, at this point, the literature revealed that little attention has been given to implementing the career education concept beyond the high school. A visit by the writer to the Career Education Curriculum Laboratory,

Tallahassee, revealed that no material had been located by that source which related specifically to the community junior college.

The role of postsecondary education, particularly the community junior college in the comprehensive school-based model is less clear, both in terms of how it should be reoriented and what role it may play in the reorientation of all education (Grede, 1973, 117). Only two operational examples of programs beyond high school were located. The San Diego Career Education model emphasizes the articulation between the community colleges, senior high schools, and junior high schools by concentrating its efforts in one subject area of the curriculum, auto mechanics. Planning is done by students, teachers, administrators, and citizens. At the community college level it provides intensive preparation in the occupational cluster and intensive guidance and counseling (Gleaser *et al.*, 1973, 21-27). Ventura County (California) includes the community college and adult education program in its comprehensive model. The adult education phase provides open-entry and open-exit instruction for job preparation (Shoesmith and Zant, 1972, 12).

The major concern at this point seems to be what should be the role of postsecondary education in the total career education process. Education for a career has always been one of the missions of higher education. Recently,

financial pressures, enrollment decreases, employment outlooks, and changing student demands are forces which have combined to make most postsecondary institutions reexamine their purpose and objectives. A Department of Labor study indicates that by 1980 about 80 percent of available jobs will require less than a bachelor's degree, but at the same time, very few jobs will be available to the unskilled (Flanders, 1970, 7). Too, a college degree no longer provides an assurance for a job placement.

Micheels states that a few postsecondary institutions have faced up to the realities of these conditions and their challenge is to channel all elements of thought into a constructive program of action resulting in a mission review and constructive changes that come from within before they are forced on the institution from the outside (Micheels, 1973, 146-147).

Other career education models now being tested in various places are the employer-based model, the home-based model, and the residential-based model. The employer-based model is directed toward those persons between the ages of thirteen and eighteen who did not complete their formal education. A consortium of public and private employers join to provide occupational education to this group. The home-based model extends the opportunity to receive occupational education to young adults, eighteen through twenty-five, who have left formal schooling. This model

uses the home as a learning center. Modern technology, television, audio visual tape cassettes, radio, tape recorders, records, and so forth, become the instructional instruments. The residential-based model, also called the rural-residential model, proposes to develop and implement resident career education programs for unskilled persons living in rural areas. Families are brought together to a central training site where each member can develop an appropriate career role through employment, study of home management, or a combination of the two. The program includes basic education, family life and community services, health and health services, economic development, and research and evaluation activities (Deegan *et al.*, 1973, 6; Goldhammer and Taylor, 1972, 6-8).

As now conceived and being developed and implemented throughout the country, career education models promise to provide opportunities for career development and preparation for any person, regardless of age, regardless of the circumstances under which he must work or live, and regardless of any social or physical barriers one must face.

*The Growth and Functions of the
Community Junior College*

The growth of the community junior college has been one of the greatest phenomena of higher education. This growth is related to the many social and economic processes

forcing change in American life: advances in science and technology creating imbalances in the social, economic and educational institutions; metropolitan growth and the population explosion; social integration caused by urbanization. The decrease in both the numbers and kinds of employment possibilities available for unskilled laborers and the increase in the demand for workers with specific skills has made it necessary that students remain in school longer. During the last decade, society and schools have been persuading students that everyone must have an education beyond the high school years. The nation's answer to this demand has been the community junior colleges with its low tuition, its open-door admission policy, its geographic accessibility, and its varied curricula.

The community junior college programs encompass seven main functions: preparation for advanced study, career education, counseling and guidance, developmental education, general education, adult and continuing education, and community services (Monroe, 1972, 32-45; The Carnegie Commission on Higher Education, 1970, 15-23; Medsker and Tillery, 1971, 53-74). Incorporated in these functions is the community junior college's responsibility to provide academic experiences which will guarantee that each student will be provided successful experiences in programs of equal worth. However, half of the freshmen have no serious educational goals or plans when they enter or have plans

that are so unrealistic, according to their abilities, that they are not obtainable (Monroe, 1972, 38-39). The community junior college provides the student more freedom to choose his future career and the opportunity to explore different educational programs than does any other higher education institution.

The open-door policy plays a great role in the numbers and types of persons who seek postsecondary educational experiences in this country. Since 1964, enrollments have increased by more than 100,000 each year. Nationally, about one-third of all students entering higher education start in a community college: in California, 80 percent; in New York, 50 percent; in Illinois, 54 percent; in Florida 69 percent (Medsker and Tillery, 1971, 16-17). In 1970 there were 1,091 junior colleges, 847 of which were public and 243 private. The total enrollment in these colleges was 2,499,837. By 1980, there will be 3.6 to 4.3 million students enrolled in these and 230 to 280 new community colleges with one-third of the nation's undergraduate enrollment attending these institutions (Medsker and Tillery, 1971, 27). This growth can be interpreted to measure the serious response by a public increasingly aware of the need for acquiring skills and knowledge in a complex society.

Student Characteristics

The open-door policy, which implies a commitment to provide educational opportunities to all, lures not only

traditional college-bound students but a great number of nontraditional students; students who have been identified by such labels as underachievers, emerging students, culturally disadvantaged, dropouts, minority groups; students whose cultural, social and economic backgrounds have not encouraged the pursuit of higher education and whose academic backgrounds reveal that they have experienced little if any success in their academic endeavors. Thirty to 50 percent of students who enter the open-door colleges are in need of basic skills for college study (Medsker and Tillery, 1971, 65). Pearson has pointed out that the total range of ability found among the country's high school graduates is represented in the population now in college (Pearson, 1966, 148). Cross found that 80 percent of public community colleges have found it necessary to make special provisions for students who do not meet the traditional academic requirements for college (Cross, 1969, 59). As a group, the two-year students "represent a much wider range of ability and achievement, . . . are less likely to be motivated for college work . . . in general . . . are more conventional, less independent, less attracted to reflective thought, and less tolerant than their peers in four-year colleges" (Medsker and Tillery, 1972, 42-45). With the improved access to higher education and the societal belief that education leads to economic mobility, the majority of

the students entering community colleges bring unique problems.

The enrollment explosion has placed an enormous challenge on the faculty and administration. In spite of their abilities, the majority of students enrolled chose a transfer curriculum (Medsker and Tillery, 1971, 45). Seventy-seven percent of the men and 65 percent of the women entering as full-time students in the fall of 1966 planned to earn a bachelor's degree (Jencks and Riesman, 1968, 487). Many of these students are unrealistic about their academic abilities, their vocational selections, and/or their unspecified limitations. According to Blocker and others, they tend to enter the transfer program because of the American myth that any individual has the opportunity to achieve the highest office in the land, to enter a profession, or to achieve wealth through personal dedication and hard work (Blocker *et al.*, 1965, 117). However, of those who enter a transfer program, only one-third actually succeed in completing it (Medsker and Tillery, 1971, 45). These students, who in the past would not have chosen postsecondary educational experiences and who may not have needed them to fulfill the jobs opened to them, now look to the community colleges as the avenue of providing access for social and economic mobility. They anticipate realistic programs to help them master the academic requirements and to develop the skills

necessary to make more meaningful goal choices as they seek better employment opportunities.

Career Education and the Community Junior College

As previously stated, the review of current literature revealed that the role of the community college in the career education process has not been as clearly defined as the roles of elementary and secondary schools. Grede identifies three factors which make career preparation beyond the high school level increasingly important:

(1) many "new careers" feature technicians, the para-professional or middle-manpower position in industry, health and government that require training and education beyond the high school; (2) high school level of job preparation historically has been associated with the term vocational and runs the risk of retaining its low status if left without an effective bridge to higher education, and (3) the higher education component of a system of career education is important in that it serves as the motivational catalyst in the American education hierarchy derived from upward social and economic mobility associated with going to college (Grede, 1973, 117-118). The real issue, he continues, is not whether higher education is included, but what kind of model will develop to influence the patterns of career education in the entire educational system,

because traditional career preparation was and still is shaped by higher education, particularly by the professional schools (Grede, 1973, 118).

The writer's postulates and assumptions in Chapter I stated that the community junior college already possesses an emerging career education structure. The system has developed a broad spectrum of postsecondary career programs based on open admissions, early specialization, combined general and specialized education, flexible instruction, and career counseling. The literature revealed that there are many opportunities for occupational training, but there is little evidence of the concept of a comprehensive career education program underway. Present programs, discussed under technical and/or vocational programs, prepare students for specific employment skills in narrowly defined occupations with no provisions for multiple exit levels at varying degrees of job competency for each occupational training program. No means seems to be provided to enable all students to assess their interest in and potential for particular skills prior to beginning employment. Too, in terms of the career cluster concept, there is little academic guidance, personal counseling, and tutoring.

The community junior colleges have enjoyed spontaneous growth of occupational educational programs since 1966. At that time, according to Skaggs, 13 percent of the student body were enrolled in occupational programs. By 1972, that

number increased to 40 percent or approximately 1.2 million students (Skaggs, 1973, 11). However, because of such rapid growth, certain operational and support problems emerged. Skaggs, who cites the areas as recruitment, overspecialization of curriculum, staffing difficulties, saturation of some areas of the job market, and ineffective evaluation and follow-up procedures, points out that in a survey by the Association of 263 different allied health careers, about twenty-five programs offer good career opportunities for students and meet the majority of needs in the health industry and in manpower goals (Skaggs, 1973, 11).

Bender points up another crisis to be dealt with. While educational leaders have supported career education, little emphasis has been placed on getting employers to recognize and to utilize the middle manpower personnel. A study of all jobs within the Florida Career Service revealed that little or no recognition of the two-year occupational graduate is given. Of more than 70,000 positions, the class specification included only eighteen classes which recognized vocational-technical schools or community college occupational education as proper training. Less than 8 percent of the classes reflected middle manpower training, although it was estimated that approximately 60 percent of all occupational jobs fell in the middle manpower range requiring some type of postsecondary occupational education (Bender, 1973, 16).

To meet the needs of the entire community of young and old, disadvantaged and traditional, minorities and majorities who take advantage of its open-door policy, and to provide career education programs which are relevant, flexible and diverse, community college educators must seek an effective means of blending general and vocational education so that this institution becomes answerable to the need to bring about universal access to higher education.

Career Education in Florida Community Junior Colleges

An examination of current catalogs of Florida's twenty-eight public community junior colleges (Appendix A) revealed that none of the institutions report the infusion of a comprehensive career education program into its curricula. A majority indicated that provisions were made for students who desired career information services. Generally located in the Counseling Center, materials and interest, ability and aptitude tests are available to help students who are undecided about their vocational choice. One institution, Broward Community College, offers a Career Planning course to help students decide on appropriate vocational choices. Open to students enrolled in the transfer or technical programs on a voluntary basis, the course attempts to make the student aware of his own abilities and limitations as well as his vocational alternatives.

Gulf Coast Community College has a Division of Career Studies. It offers specialized studies in the areas of professional, technical and business education. The course offerings in this division "constitute an integral and significant part in meeting the individual needs of both youth and adults in this area for employment opportunities in Florida's expanding employment pattern." Florida Keys Community College's catalog contains a section on Career and Occupational Education. However, its emphasis is on technological and semiprofessional programs. Polk Community College has a position entitled Director of Career Education. From the data listed, this person's responsibilities are confined to occupational and technical programs.

On a whole, the catalogs show little evidence that the Florida system of community junior colleges has incorporated the components of a comprehensive career education program into its various curricula.

It is evident that the community junior college does offer opportunities to obtain these career skills. However, a limited number of the student population take advantage of these opportunities. Therefore, ways and means of offering to all students the chance to acquire knowledge, competencies, and skills related to their needs and goals need to become one of the major concerns of administrators, faculty, and students.

Current Theories of Career Development

A review of current literature on the approaches utilized in the career development process indicates that the study of the arrangement of working conditions for human beings may be built around the trait-factor theory, sociology and career choice, developmental self-concept theory, and vocational choice and personality theories (Osipow, 1968, 10). These categories are not mutually exclusive or independent but combine to explain the patterns of human existence which result in differential vocational behavior and choices. The remainder of this chapter will discuss these theoretical positions and the implications they have for helping the individuals understand their behavior in order to engage intelligently in the process of career choice selection.

Trait-Factor Theories

The trait-factor theories, the oldest theoretical approach to the career development process, assume that a straightforward matching of an individual's abilities and interests with the available occupational opportunities can be accomplished; once done, this solves and completes the problem of vocational choice for the individual (Osipow, 1968, 11). This approach regards the individual as a pattern of traits (interests, aptitudes, mental abilities, socioeconomic characteristics, values, etc.) which can be

identified through objective means and then profiled to represent the individual's potential. The vocational testing movement was an outgrowth of the trait-factor point of view. Also, interest inventories and aptitude tests are based on this stream of thought.

Vocational psychology from its beginning until shortly after 1950 was essentially a psychology of occupations. The occupation was the subject, and the person in it was the source of data on the occupation (Super, 1969, 2; Whiteley and Resnikoff, 1972, 14-15). This assumption leads to a narrow perspective because vocational development is not solely concerned with the choice of an occupation but also with the process by which such choices can be purposefully integrated within a patterning of decisions, thereby maximizing freedom of choice and implementing the personal meaning of the ways one conceives his traits (Herr and Cramer, 1972, 30-38). As a single predictor, Cox found that educational measures have limited usefulness (Cox, 1971, 273-274).

Currently the trait-factor approach has been absorbed into other approaches to the career development process. Cooley has indicated that today's use of this process is not simply the task of relating a test score (a predictor) to some final occupation but the consideration of patterns of attributes and their relationship to the sequence of decisions a person must make establishing

himself in the world of work (Cooley, 1964, 88). These patterns include variables such as work values, occupational stereotypes and expectations, residence, socioeconomic status and child-rearing practices, general adjustment, and personality factors. The personality factors include needs and propensity for risk taking, educational achievement, level of aspiration, and sex. Each of these is influenced by the others with the preponderance of one or more variables more heavily dependent upon the individual making the choice. As one of several elements in the career development process, the trait-factor theorists are invaluable because they established a means of assessing aptitudes, intellectual and social abilities, and interests.

Sociology and Career Choice

The sociological emphasis in the career development process has as its central point the concept that circumstances beyond the control of the individual contribute significantly to the career choice an individual makes. The principal task confronting a person is the development of techniques to cope effectively with his environment. The narrowness or the breadth of the individual's culture or social class boundaries has much to do with the occupational choices he can consider, make, and/or implement (Herr and Cramer, 1972, 41-44). Moynihan has pointed out that the circumstances in which poverty flourishes produce a distinctive milieu that conditions the social responses,

educational attainment, vocational ambition, and general intellectual level of the overwhelming majority of those raised within it (Moynihan, 1964, 229). Lipsett identifies social class membership, home influences, school, community, pressure groups and role perception as social factors that directly or indirectly interact with vocational development (Lipsett, 1962, 432-437). The degree to which they act as determinants or constraints in the development and choice process can be assessed only on an individual bases.

Extensive research has been conducted in the ways social class background shapes vocational development. Gottlieb, in his study of white and black Job Corps youth, found that there was no support for the proposition that the lower-class culture has a built-in set of values that discourage social mobility. Rather, it appears that lower-class parents lack the abilities to help their children move into more advantageous positions and there are few other adults in their lives who have the ability to help them in goal clarification and goal attainment (Gottlieb, 1967, 122). Studies by Schmeiding and Jensen of American Indian students (1968), by Asburg of rural disadvantaged boys (1968), by Stevic and Uhlig of Appalachian youth (1967), and by Gribbons and Lohnes (1966) of students in the Boston area support the premise that students in the lowest aptitude levels expect more education and think that their

parents want them to have more education than is realistically possible.

Social class factors also limit vocational development and expectations upon middle and upper socioeconomic youth. Krippner, in a study of the education plans and preferences of upper middle class junior high pupils, found that most of them were expected to attend college and that neither pupil dislike of school nor poor achievement deterred these students from agreeing with their parents that higher education should be given high priority (Krippner, 1965, 260).

In terms of the college mystique that operates in this society, research data supports the fact that middle and upper class students are in college because they have not had an opportunity to consider any other option or avenue by which their goals might more effectively be met (Gribbons and Lohnes, 1966, 69). Thus research data indicate that the personal aspirations of an individual reared in an environment which does not support long-range planning and/or deferred gratification may be the same as those reared in more favored circumstances. In both cases, the individual is at a considerable disadvantage in achieving the occupational prerequisites for obtaining his goals.

From the above, it can be seen that cultural constraints and socioeconomic background play significant roles in one's vocational choice. It becomes increasingly

the responsibility of the school to provide each individual with the skills and knowledge that he will need to cope effectively with his environment. Equally important, he must be provided with occupational alternatives which permit him to become a happy, self-sustaining contributing member of society.

Developmental Self-Concept Theory

The developmental self-concept theory approach holds as its central theses that (1) individuals develop more clearly defined self-concepts as they grow older, although these vary to conform with the changes in one's view of reality as correlated with aging, (2) people develop images of the occupational world which they compare with their self-image in trying to make career decisions, and (3) the adequacy of the eventual career decision is based on the similarity between an individual's self-concept and the vocational concept of the career he eventually chooses (Osipow, 1968, 11).

Super, the outstanding theorist in this area, views the developmental self-concept theory as an integrative approach which stresses the interaction of personal and environmental variables in vocational behavior. Synthesizing the works of Buehler, Ginzberg and Havighurst, Super characterizes the vocational process as ongoing, continuous, and irreversible (Herr and Cramer, 1972, 49-53). His basic

premise is that the individual chooses occupations which will allow him to function in a role consistent with his self-concept and that the latter conception is a function of his developmental history. Because of the range of individual capabilities and the latitude within occupations for different combinations of traits, Super gives prominence to the individual's mastery of increasingly complex vocational developmental tasks at different stages of vocational development. These stages are crystallization (ages 14-18), specification (ages 18-21), implementation (ages 21-24), stabilization (ages 25-35), and consolidation (age 35 plus).

The adolescent (crystallization stage) is cast in the role of explorer until he finds direction for himself. At this stage, the school curriculum should help the student become aware of his level of occupational aspiration and the general amount of education required to achieve that level. This self-knowledge could be developed without specifically deciding on a career goal as the student broadens his occupational perspective and explores available resources effectively. The young adult (specification and implementation stages) must translate the direction he has taken into action for educational training and job placement. The more mature adult must find his place within his vocation, and, once he has done so, must elaborate upon it and secure his position.

Within these stages are internal and external factors which influence the individual's occupational choice. These factors tend to narrow the career options that the individual considers. As one moves through these life stages, certain behaviors are more likely to result in growth than others. The degree to which the individual accomplishes the vocational task is a result of the adequacy with which he has performed the behaviors appropriate to each phase of his development (Osipow, 1968, 117-126; Herr and Cramer, 1972, 49-53 and 102-110).

Other theorists who have formalized particular developmental tasks with stages of increasingly mature vocational behavior are Havighurst (1953), Erickson (1968), Super (1972), and Gribbons and Lohnes (1968). Thus the assumption can be made that the developmental task concept is useful as a description of the changing demands on individuals as they move through the various life stages. Also, it serves as a means of organizing the knowledge, attitudes, and skills needed as one approaches and/or prepares for a life vocation.

Vocational Choice and Personality Theories

All theories of career choice are in some sense related to personality development. The research and theories advanced in this area range from detailed lists

of needs inherent in the process of vocational choice and personality types for career areas to many empirical studies on the particular personality factors involved in career choice and career satisfaction. The general assumption underlying these studies is that workers select their jobs because they see potential for the satisfaction of their needs. A corollary hypothesis is that exposure to a job gradually modifies the personality characteristics of the workers. It can be assumed, therefore, that different occupational or curricula areas are populated by persons of different need types or personality types. These approaches rather consistently develop a classification of personality or need, and then relate it to gratifications available in different occupational or educational environment. The leading theorists in the area are Roe and Holland.

Roe's research in this area indicates that personality differences evolve as a result of child-rearing practices and these differences are related to the kinds of interaction that such persons ultimately establish with their environment. She suggests that there are relationships between the psychic energy, genetic propensities, and childhood experiences which shape individual styles of behavior and that the impulse to acquire opportunities to express these individual styles is inherent in the choices made and the vocational behavior

which ensues. To elaborate the need constructs, Roe has applied Maslow's theory of prepotent needs to vocational behavior (Osipow, 1968, 16-38). Her conclusions imply that occupational choices are made as aspects of self-classification whether the central focus is impulse gratification or need satisfaction. Thus vocational choices are made as affirmations of personal behavior styles.

Holland's research focuses on the behavioral style or personality type as the major influence in vocational choice and development. He assumes that at the time a person chooses his vocation, he is a product of his heredity and environment. As a result of early and continuing influences of genetic potentialities and the interaction of the individual with his environment, there develops a hierarchy of habitual or preferred methods of dealing with social and environmental tasks. The most typical way an individual responds to his environment is his modal personal orientation. Holland has categorized these into six classifications: realistic, intellectual, social, conventional, enterprising, and artistic (Holland, 1973, 11-26; Herr and Cramer, 1972, 48-49; Osipow, 1968, 39-69). An individual will lean toward an environment that will satisfy his particular orientation. Occupational groups provide different gratifications which

require different abilities, values, attitudes, and identifications. Holland alleges that congruent interactions of people and environments belonging to the same type or model are conducive to more stable vocational choice, higher vocational achievement, higher academic achievement, better maintenance of personal stability and greater satisfaction (Holland, 1966, 73-78).

All theories of career development are closely interwoven and, in many instances, draw heavily upon one another both in terms of actual practice and in empirical research. In the developmental self-concept approach, part of the image of one's self is based on tests which reflect the trait-factor approaches. Roe's and Holland's personality theories include many developmental factors.

The brief review of the literature of the career development process has engendered a cognizance of the trait-factor, sociological and psychological approaches utilized to describe and enhance vocational development. It is clear that the career development process involves decisions made over a relatively long period of time. It is a process shaped by an interplay of the self, of educational and occupational opportunities, of generic and environmental influences, of evolving personality styles, and of patterns of traits which the individual expresses cognitively and psychologically as he seeks vocational identity. If systematic assistance in making career

decisions can be provided, it seems that the individual's chance of selecting an appropriate vocation will be greatly increased.

Summary

Based on the review of related literature it has been shown that: (1) The role of the community junior college in the career education process is not clearly defined but that an emerging career education structure does exist; (2) The majority of students in the community colleges are enrolled in transfer programs but only about one-third of this number actually do pursue the baccalaureate degree; (3) The community junior college provides the avenue whereby postsecondary educational opportunities may be made accessible to all; (4) The present economic structure makes education beyond high school a necessity; (5) The comprehensive school-based career education model fosters education for all, from kindergarten to adulthood; (6) Career education involves all students regardless of their vocational plans; and (7) Current career development theories indicate that one's vocational selection is a combination of sociological and psychological factors, of generic and environmental influences, and of personal and intellectual traits which interact and manifest themselves in vocational decisions. The processes involved in these

decisions occur over a long period of time. This being so, it is clear that the more data a person has about these elements, the wiser career decision he can make.

Therefore, until the comprehensive school-based model works its way through all education levels, present high school and postsecondary students will not benefit from its specific elements, namely career awareness, self awareness, educational awareness, economic awareness, and employability and decision making skills. For that reason, there is a need to design a plan which will incorporate the career education concept into the general education program of community junior colleges so that all students will benefit from its components.

CHAPTER III

PROCEDURES IN THE STUDY

The review of the literature and findings of a visit to the Career Education Curriculum Laboratory of the Florida State Department of Education underscored the fact that the components of career education are now not available to community junior college students. On these bases, interviews with the Deans of Academic Affairs (or comparable title) were held at six selected public community colleges.

These interviews were made to identify firsthand data on the current status of career education programs in Florida community junior colleges. These institutions represented a cross section of Florida's community college system. Criteria for selection were: (1) three state designated area technical centers; (2) three suburban and three rural communities; (3) three with enrollments over five thousand and three under twenty-five hundred; (4) one of the state's oldest community junior colleges and one of the newest, and (5) two multicampus institutions.

Through these interviews, the following data were obtained: (1) the institution's current position on career education; (2) the nontraditional learning strategies utilized by the faculty; (3) the opportunity for all

students to develop skills in career awareness, in self-awareness, and in educational awareness as well as an understanding of the economic structure of the economy so that more meaningful career choices may be made; (4) the types of counseling services available; (5) the status of on-going career education programs; and (6) the plans for future development and/or implementation of career education components into the curriculum for all students.

Visitations were made to interview the following persons:

Dr. Philip A. Fredrickson
Dean of Academic Affairs
St. Petersburg Junior College

Dr. Clarence C. Holden
Dean of Instruction
Polk Community College

Dr. Robert Myers
Vice President for Academic Affairs
Santa Fe Community College

Mr. Peter Parrado
Director of Collegium
Hillsborough Community College

Dr. Robert F. Ritterhoff
Dean of Academic Affairs
Central Florida Community College

Dr. John E. Sands
Vice President for Academic Affairs
North Florida Community College

The questionnaire used as an interview guide is included in Appendix B. The findings of the interviews follow.

The present enrollments at the colleges where interviews were held range from a student population of 600 to 8,038 (FTE). Of this number, 60 to 70 percent are enrolled in the transfer program. These percentages represent a decrease in students enrolling in the transfer programs over the past two years.

None of the colleges visited had a stated philosophy nor objectives for its career education goals. However, all persons interviewed felt that the tenets of the career education concept are included in the philosophy and objectives as stated in current catalogs. An examination of these statements revealed that their contents ranged from a very general statement to a detailed list of specifics. Emphases are placed on counseling and related activities designed to help students make effective educational and occupational plans and progress toward the achievement of their goals. Two colleges are in the process of developing a "mission statement" on career education.

All the Deans indicated that their colleges make some use of modular instructional packages, flexible instructional approaches to accommodate different learning styles, and behavioral objectives in course syllabi. One institution uses these strategies extensively. Modular instructional packages are utilized in occupational areas and in programs for students who have learning deficiencies.

In these programs, students start instruction in communication and computational skills at a level which has been determined by testing and counseling and progress at their own learning rate and speed until they complete the requirement of that discipline. One college requires that all students who score below 150 on the Florida Twelfth Grade Placement Test enroll in the Basic Education Program. Here the student has an opportunity to complete college credit courses in an open-ended experience with no fixed completion dates. Extensive use of behavioral objectives in occupational/technical subjects was indicated by all Deans, but there is little utilization of this strategy by persons who teach in the general education core. As indicated by one interviewee, "These teachers (of general education courses) feel that this would downgrade their hallowed content."

Each institution's general education requirements adhere to the standards of the Southern Association of Colleges and Schools and take into consideration the articulation agreement between the public community junior colleges and the state's university system. In semester hours, this represents from 14 to 18 hours which includes English, mathematics and/or science, social science, humanities, and physical education. One institution is presently reviewing its general education core.

The elements of the career education components most neglected at the community college level appear to be

career awareness, competencies in self-management and the management of knowledge, and career choice skills. Inquiry about the opportunities for students to develop skills in these areas revealed that only limited attention is given to these concerns. In institutions where provisions are made for students to develop these skills, they are required only for students in occupational/technical programs. Two of the colleges where interviews were conducted have occupational programs that have orientation and/or core courses which are required of all students who have indicated an interest in the specific programs. These courses offer the student an opportunity to become knowledgeable about career opportunities in that occupational cluster. Another institution requires that all students, transfer and occupational, complete a behavioral science course which exposes the student to the principles of human life in numerous and changing environments. Learning opportunities to obtain exploratory experiences in careers of interest and to develop competencies in self-management and in the management of knowledge are limited, and, if available, are aimed at the occupational student. Opportunities are made for some students to develop an understanding of the occupational structure of the economy through work study and cooperative education experiences.

For the student in the transfer program, no organized effort is made to ensure that his career choice

is based upon a knowledge of his personal skills, abilities, interests, needs, and/or goals. The facilities and services offered to the nontransfer student are available to all students, but the associate of arts degree seeking student must feel a need, seek out the service, and request specific advice. No efforts are made at any of the colleges visited to incorporate these career education skills into the total school program.

Since counseling services are an important aspect of the total career education concept, a look at the counseling facilities and services available indicated that adequate personnel is provided and unique programs are being offered. Five institutions have professional counseling staffs as recommended by the Carnegie Commission (Medsker and Tillery, 1971, 64). The sixth college augments its limited counseling staff with instructional personnel assuming some counseling responsibilities. One college employs counseling teams for vocational students. Each team consists of two occupational specialists and one counselor who are assigned to students enrolled in that occupational cluster. For the student who is undecided about a career choice, one college provides an opportunity for him to become knowledgeable about career clusters and to become aware of his own interest, abilities, and aptitudes. All institutions have at least one counselor

who is responsible for occupational counseling. Two colleges used group counseling but on a limited basis. Most of the services offered are on a one-to-one basis.

All colleges visited utilize occupational/vocational tests and printed materials in their counseling processes. In addition, audio-visual materials and local consultants are employed to enhance occupational orientation services. In most of the colleges, counseling services were located in special areas on the campus. Only one institution housed its counselors in classroom buildings.

All interviewees indicated that the colleges have begun to consider their specific roles and responsibilities in the career education process. It was reported by all that only a limited number of the teaching faculty are knowledgeable about the career education concept, and these instructors are usually employed in the occupational/technical programs.

It is evident that the community junior college does offer opportunities to obtain some career education skills. However, such opportunities appear to be unavailable to the total student population. Therefore, ways and means of providing access for all students to these competencies and skills should become one of the major concerns of administrators, faculty, and students. These findings and observations constitute a basis for trying to incorporate

career education components into the community junior college's general education core.

As one examines the elements of career education, it becomes clear that it is important that all community junior college students develop those competencies which will enable them to make effective career choices. One method of accomplishing this task is to provide the instructional staff with the requisite knowledge, instructional materials, and resource materials which will help them to incorporate career education components into the existing instructional program. These instructional guides have been prepared as part of this dissertation which will demonstrate how components of the career education concept may become an integral part of the community junior college's offerings.

The general subject area of the three instructional guides is the occupational cluster concept. The first guide focuses on the use of reference materials, an activity all students participate in during their academic pursuits. The second guide presents activities centered around career choice-selection skills. The third guide introduces the occupational cluster concept. Each guide includes an introduction, a rationale, general objectives, behavioral objectives, content (material generally taught), a preassessment, learning activities, and postassessment.

A combination of the Houston and others and the Johnson and Johnson models for developing instructional packages or modules is used. By preparing the guides in the above format, it is hoped that an instructor may readily see how such material and activities may be easily incorporated into an existing program. The guides present in-class and out-of-class activities which demonstrate how individual or group assignments may be utilized to emphasize the specified skills. They present a variety of instructional modes which will permit the instructor to select those which will meet the unique learning styles of his students. The instructor, in using the module format, can easily modify the unit to adapt its content and learning activities to a specific locale. Also the module format will allow an instructor to alter the instructional guide so that it becomes an individualized, self-paced instructional program.

After the instructional guides had been developed, the next step was to submit them to a panel of five leaders in the community junior college field for evaluation. The writer requested a critical analysis of the instructional guides from each of these leaders based on strengths and weaknesses, sound postulates and assumptions, the best knowledge available on the topics in the guides, the contribution to the development of specified career education skills and the feasibility of implementation (Appendix B).

The requests were made of:

Dr. Johnnie Ruth Clarke
Assistant Dean of Academic Affairs
St. Petersburg Junior College

Dr. George Mehallis
Director, Technical/Vocational Studies
Miami-Dade Junior College

Dr. Joseph T. Nerden
Department of Industrial and Technical Education
North Carolina State University at Raleigh

Dr. John E. Roueche
Professor of Junior College Education
The University of Texas at Austin

Mr. Kenneth G. Skaggs
Specialist, Occupational Education
American Association of Community Junior Colleges

These persons were chosen because of their experiences and knowledge in the areas of the community junior college and/or occupational education. Their selection was based either on the writer's awareness of their contributions or upon recommendation by members of her advisory committee.

CHAPTER IV

INSTRUCTIONAL GUIDES

Introduction

The organizational and philosophical structure of the community junior college encourages rapid incorporation of career education components at the collegiate level. Presently, the community junior college's educational approach is aimed at servicing the various needs of its community. The open-door admission policy, immediate specialization in occupational programs, the combining of general and occupational education, and the increased availability of guidance and counseling services offer an operational framework for providing career education components for the youth and adults of the college's service area. Also, the nontraditional course offerings and the flexible approaches to instruction add further support to the writer's belief that career education components could be incorporated without difficulty into the general education program at the community junior college.

The majority of students who enroll in the community college select a transfer program but only about one-third of this number actually pursue the baccalaureate degree.

Also, half of the freshmen have no serious educational goals when they enter college or have plans that are so unrealistic, according to their abilities, that they are not obtainable (Monroe, 1972, 38-39). Since the community college provides the student more freedom to choose his future career and the opportunity to explore different educational programs than does any other higher education institution, it is imperative that opportunities to develop the skills and competencies necessary for wiser career choice-selection are included in the educational experiences of all students.

As one examines the total career education concept, two major components, exploration and knowledge of broad occupational areas and a knowledge of the educational avenues leading to the attainment of specified careers, are important activities in the selection and preparation for a vocation. An incorporation of these two components into the general education program would greatly enhance the awareness and occupational selectivity skills of all students, transfer and occupational students alike.

Three instructional guides are presented to demonstrate how specific career education elements may become an integral part of any general education program. The first instructional guide emphasizes the use of reference materials as a means of providing learning opportunities to increase the student's skill in self-

awareness, in career awareness, in educational awareness, and in decision-making skills. The second instructional guide focuses on the development of career choice-selection skills. Learning activities are provided which will enhance the student's decision-making skills and his development of the appreciation and attitudes components of career education. The third instructional guide is an introduction to the occupational cluster concept. Learning experiences are presented to stress the economic awareness, skill awareness, and employability phases of career education. Using a module format, each instructional guide includes an introduction, a rationale, general objectives, behavioral objectives, a preassessment, content material, learning activities, and a postassessment.

*Instructional Guide for
Use of Reference Materials*

As a result of the knowledge explosion and man's efforts to organize knowledge into easy retrieval patterns, the library and other resource centers offer unlimited amounts of information and materials to those who know how to utilize its various resources. However, too often students are neither knowledgeable about the types of materials available in their libraries nor skilled in the use of these materials to discover as many facts as possible about a specific topic. Too often students have

become dependent on teachers or others for information that they could obtain themselves and, in many cases, concerning which they could secure more complete coverage. If an instructor's attitude is negative toward the student's questions, he will stop asking questions; thus, he will not get the answers that are needed.

If the student could find out for himself, if he could challenge and question and gather data at his own rate; he would not only obtain information that he needed, but equally important, he will develop confidence in himself and his abilities as well as sharpening his decision-making skills.

The purpose of this instructional guide is to suggest ways that the student may utilize reference materials to enhance his decision-making skills, his self-concept, and to help him become knowledgeable of the occupational cluster concept of career education.

Rationale

Many students develop a feeling of dependency because they possess limited knowledge on subject matter or lack the skills needed to make use of reference materials available in their communities. By developing competencies in the use of the various resource materials, the student not only learns how to become more independent as he obtains needed data, but he also becomes familiar with and

knowledgeable in the use of information centers which will always be available to him.

General Objectives

The major goal of this guide is to help the community junior college teacher provide the student with the knowledge and skills necessary to use effectively and efficiently resource materials available to him. Learning opportunities will be developed to provide experiences:

- A. To identify resource materials
- B. To use resource materials
- C. To gather data using the resources
- D. To create one's own career information file

Resource materials are located in many places within a community. Efforts should be made to incorporate as many of these sites as possible. Examples are:

<u>School</u>	<u>Community</u>	<u>County, State and Federal</u>
Classroom	Public services	Archives
Library	Private libraries	Legislative buildings
Guidance office	Court house	Public departments
	Newspaper	Bureaus
		Courts

There are others; these are just examples. A student could become involved with other communities, institutions, or even states. The teacher should guide the student in the beginning by preparing in advance a list of resource materials available in the area of study. This would provide the student with a basis for his work.

Behavioral Objectives

- A. The student will visit those areas of the school that house resource materials.
- B. The student will demonstrate his recognition of the various parts of the school's library.
- C. The student will locate and identify (from a list) resource materials.
- D. The student will recall the materials contained in different areas. The student will indicate where resources are located within these areas.
- E. The student will use reference materials in order to locate information on a particular problem or topic.

Preassessment

The student will name and describe the contents of four basic reference sources generally housed in the school's library.

Using all available resource centers, the student will thoroughly research a career which interests him. The findings, orally or in writing, should include a definition, a brief history, the nature of the work, educational requirements, opportunities for experience and exploration, entry procedures, advancement possibilities, salary range, working conditions, and social and psychological factors.

Content

A. Basic types of reference sources

1. General encyclopedias

A source of miscellaneous information, these encyclopedias present accurate information on a wide scope of content designed for general

audience. They provide opportunities for extensive study in fields of their interest.

a. Major general encyclopedias

Major encyclopedias housed in campus library should be named. Examples:

American Educator Encyclopedia
American Peoples Encyclopedia
Book of Knowledge
Collier's Encyclopedia
Compton's Pictured Encyclopedia
Encyclopedia Americana
Encyclopedia Britannica

b. Abridged encyclopedias

These encyclopedias are usually in one or two volumes and are valuable as ready references. They tend to emphasize the presentation of specific facts. Examples:

The Basic Everyday Encyclopedia
The Columbia-Viking Desk Encyclopedia
The Lincoln Library of Essential Information
The New Century Cyclopedia of Names
The Volume Library

c. Foreign language encyclopedias

Foreign language encyclopedias contain biographies of persons renowned in other countries and may be used as a cross reference to verify data.

2. Annuals, almanacs, and handbooks of miscellany

a. Encyclopedia annual supplements

Publishers' efforts to keep general encyclopedias current. While they do have drawbacks, they do provide excellent sources for certain types of information.

b. Almanacs and other annuals

Tend to emphasize information that changes almost every year or is subject to constant bringing up to date.

c. Handbooks of miscellany

An important type of reference which contains data on specific subjects. Examples:

Brewer's Dictionary of Phrases and Fables
5000 Facts and Fancies

3. Books about words

a. General English language dictionaries

Although many professionals use the dictionary daily, very few exploit the possibilities of word books to their utmost. These dictionaries contain such information as abbreviations, symbols used in proofreaders' marks, biographical names, forms of address, list of colleges and universities, rules of grammar to cite a few.

- (1) Unabridged dictionaries
- (2) Abridged dictionaries

b. Specialized books on words

These books approach the subject from a special point of view and serve a special purpose. They include works on origins of words and phrases, slang and idiom, Americanisms, synonyms and antonyms, rhyming dictionaries, crossword puzzle, and lists of abbreviations.

c. Foreign language dictionaries

4. Guides to periodicals

Two types of guides to periodicals exist. One guides the student to individual works. The second type consists of the various indexes to the contents of periodicals.

a. General lists of periodicals

Provide principal sources that list periodicals in all or several categories

- b. Specialized lists of periodicals
Contain publications in special fields

- c. Self-indexing periodicals
Many periodicals and daily newspapers
maintain indexes of their own contents

- d. General indexes to periodicals

Reader's Guide to Periodical Literature
Educational Index
Current Index to Journals in Education
(CIJE)

- e. Specialized indexes to periodicals

- f. Abstracts

Designed to index current literature in a
specific field to give a digest of the most
important current publications in the field

5. Guides to books

Thousand of books are published annually. Through
various guides, titles and résumés are made avail-
able to assist the public in knowing what has
been published. The library's card catalogue
is the most important of all bibliographic
tools.

- a. Book reviews
- b. List of the guides to current literature
- c. General bibliographic aids and sources
- d. Guides to reference works

6. Directories

Directories form the largest single category of
reference works. The majority of directories
are published by commercial firms or organizations
and are classified as personal, cultural, or
commercial.

a. Telephone directories

Telephone companies publish the greatest number, and, as a source of information, go far beyond supplying an alphabetical listing of names, addresses, and phone numbers.

b. Guides to directories

Listing of directories of interest to special groups

B. Other sources of information

1. Governmental information sources

The greatest compilers and suppliers of information of all sorts are the various agencies of the federal, state, and local governments. Their information is inexpensive (often free), constitute primary sources of information, up-to-date, unbiased, and parallel popular interest.

a. Federal government

b. State and local governments

More specialized and limited in nature

2. Special libraries

Special collections in public and university libraries devoted to special fields or subjects. They also include institutional (museums, planetariums, etc.), organizational, commercial, and government facilities.

3. Commercial and organizational sources

Sources of free or inexpensive data developed to promote good will and company's interests

4. Photocopying service

Process available for materials not readily available and/or accessible

5. Foreign information sources

Source of much good, free information aimed at furthering trade and/or tourist industries.

6. International organization

Department of Public Information of United Nations publishes a variety of information of international interest.

7. Sources of graphic information

More and more libraries are developing files of audio-visual aids to instruction and fact finding.

a. General sources

Encyclopedias
Annuals
Yearbooks
Picture dictionaries
Books and magazines

b. Sources of photographs

*Guides to Special Collection of Prints and
Photographs in the Library of Congress
Guide to the Records in the National
Archives*

c. Sources of films, filmstrips, and slides

*Audio-Visual Materials for Educational and
Cultural Uses
Blue Book of Audio-Visual Materials
Filmstrip Guide
Educators Guide to Free Films
Educators Guide to Free Slidefilms*

C. Specific sources of information

1. Information about people

Book length biographies	Chapter length biographies
General encyclopedia	Encyclopedia yearbooks
General biographical dictionaries	Who's Who
Newspapers	Textbooks
Almanacs and annuals	Magazines
	Dictionaries

2. Information about places

General encyclopedias	Encyclopedia yearbooks
Almanacs	Dictionaries
Gazetteers and geographic dictionaries	Atlases
Guidebooks	Geographic handbooks
Governmental geographic data	Periodicals

3. Information about things

Encyclopedias
Dictionaries
Guides
Handbooks
Bibliographies
Yearbooks and annuals
Abstracts

Learning Activities

A. Out-of-class activities

1. Field trip by entire class to the campus library. Arrangement should be made with the professional staff to conduct an extensive, detailed tour of what is available in that resource center. Opportunities should be provided for students to:
 - a. Use card catalogue correctly and efficiently
 - b. Use the stacks
 - c. Use reference books
 - d. Use library machines
 - e. Use periodicals
 - f. Become knowledgeable of auxiliary services
 - g. Become knowledgeable of services offered by library personnel
2. Field trips by entire class to other reference material centers in community. This might include public and/or private libraries, court house, newspapers, etc.

B. In-class activities

1. Activities to reinforce out-of-class activities
 - a. After visiting the area(s) that contained resource materials, the student will discuss his personal reactions. Was it beneficial? Informative? Was he aware of services available? How could the experience be improved?
 - b. Student should demonstrate that he has a basic understanding of what resource materials are and how they can be located.
 - c. Oral presentation of individual's step-by-step efforts to obtain information on a specific topic. Total class discussion should be encouraged to insure an adequate search.

C. Activities to strengthen career decision-making skills

Activities should center around reference materials which are readily accessible to students or which may be obtained at a nominal cost.

1. Student will use available resource materials to become familiar with careers existing in the occupational clusters. Student should be encouraged to select a cluster which interests him.
2. Student, through research efforts, will demonstrate knowledge of education and skills needed to obtain a position which is of interest to him. This should include the nature of the work, requirements, opportunities for experience and exploration, method of entering, advancements, employment outlook, earnings, social and psychological factors, sources of additional information.
3. Student should request, by mail, information about a specific career. Instructions on proper letter writing form should be reviewed.
4. Student should discuss specific careers with local professionals and educators who are practicing in a field or occupation that interests him.

Postassessment

Given a list of resource materials, the student can identify, locate and describe them.

The student can identify, locate, and describe the use of five directories listing post-secondary educational opportunities at the community junior college level, the college and university level, and at the technical level.

Using the *Dictionary of Occupational Titles*, the student can identify ten occupations which are ranked highest in dealing with people, things, or data.

Using available resource materials, the student will locate answers to specific problems or questions.

The student will demonstrate, orally or in writing, his knowledge about the career opportunities available to him within an occupational cluster which interests him.

The student will demonstrate, orally or in writing, his knowledge about the requirements and long-range employment possibilities of a specific career.

Instructional Guide for Career Choice-Selection Skills

Today's students face an increasing number of choices relating to their futures. Living in a society that is the most productive, highly scientific and technological that has ever existed has allowed them to approach the future with a variety of life styles that provide

alternatives for planning. Many students want to plan for themselves and can do a successful job. Others prefer not to think too seriously about the future.

Whatever the students' attitudes, their options exist in increasing numbers. As industries continue to grow larger, more complex and more mechanized, fundamental changes will take place in the nation's occupational structure. The Bureau of Labor Statistics indicates that one of the most significant changes in the occupational structure has been the shift toward white-collar jobs with professional and technical occupations having the greatest growth.

The greater the number of opportunities, the better a person's chance to find personal satisfaction. However, more options make the task of vocational decision-making more difficult. More values are in conflict, more variables have to be considered, and a greater amount of information is needed. If one chooses without adequate information based on objective data or personal experience, without a feeling of future consequences, without sufficient skills or practice in the career choice-selection process, a person may choose unwisely.

An essential feature of career education is the opportunity for students to become knowledgeable about alternatives in their career selection. This feature

enables the student to engage in choice-selection skills as an instructive aspect of his personal growth and development. Career choice-selection implies alternative choices and the opportunity to reject as well as to accept alternatives. Career selection is considered to be the cumulative phenomenon which results from a growing awareness of self and a growing awareness of career options.

The process of career choice-selection is extremely important. It is practiced everyday. Yet it receives little attention until a person is faced with that major decision that has long-term consequences. Our educational system does not provide an opportunity for students to learn a conscious process for making vocational decisions. The purpose of this instructional guide is to provide students the opportunity to learn the career choice-selection process and to apply it to the personal, educational, and vocational decisions they face.

Rationale

Early in one's academic career he is asked to make an important vocational decision, "What do you want to become?" Frequently he does not see clearly what is really important, what course of action or what alternatives are available to him. As a result, he is more likely to make a decision which is not satisfying. If the individual is skilled in a career choice-selection process, it is more

likely that the outcome will be satisfying. The individual will experience more personal freedom in his life because he is more likely to recognize, to discover, or to create new opportunities and alternatives. He will have more control over his life because he can reduce the amount of uncertainty in his choices and limit the degree to which chance or other elements determine his future.

General Objectives

The major goal of this instructional guide is to provide students with the elements and skills in a career choice-selection process. Learning activities will be developed to provide experiences:

- A. To help the student to become knowledgeable about the elements of the career choice-selection process
- B. To help the student experience success in his own eyes
- C. To help the student consider and make decisions regarding the values of a work-oriented society
- D. To help the student develop an understanding and appreciation of one's talents and interests
- E. To help the student make choices from the widest possible range of alternatives which can be made available to him and to weigh the consequences
- F. To help the student formulate plans for implementing the choices selected and decisions made
- G. To help the student accept some personal responsibility for his own destiny, i.e., to make the student aware of the fact that what happens to him is, in part, a result of what he does or does not do

Behavioral Objectives

- A. From a series of case studies about working conditions as they affect individuals with different characteristics, the student can identify patterns of coping behavior and discuss their implications for himself under similar circumstances.
- B. The student is able to define the congruence between his aspirations, values, and preferred life styles.
- C. The student is able to identify, assess, and defend his analysis of possible steps that he might take to minimize his limitations and to maximize his assets as he makes a career choice.
- D. The student verbally differentiates his self-characteristics (interests, values, abilities, personalities, traits) and expresses tentative occupational outlets for each.
- E. The student can describe possible personal and environmental contingencies that could impinge upon his decision about his future.
- F. The student can identify in a gaming situation future decisions he must make in order to reach different goals.
- G. The student considers five different categories of upper division universities or colleges, chooses one, and defends his reasons for selecting it.
- H. The student takes specific steps to complete a degree program of his occupational preference.

Preassessment

The student will be asked to respond, orally or in writing, to the following situations: Imagine that you are in your first year at the local community junior college and that you know your present GPA (Grade Point Average), your abilities, habits, activities, and home life. Imagine that suddenly you are forced to be entirely on your own.

You must support yourself entirely with no help from your parents. What actions can you take to support yourself? What plan will you make about your education? How much will your present lifestyle be changed? How much will your future be changed? Make a list of all the possibilities available to you and develop a plan of action which will indicate what your immediate and long-range plans might be to obtain your vocational objectives.

Content

Career choice-selection, as used in this guide, is defined as a process which occurs when a person examines his personal attributes, the occupations available to him, and selects a vocation. The career choice-selection consists of: (1) the acquisition of specific skills to help one make the wiser choices among the existing alternatives and (2) a system of diagnosis to aid the student in acquiring as much educational and personal data about himself as possible.

A. Elements of the career choice-selection process

1. Career choice-selection skills

a. Examination and recognition of personal values

- (1) One's values form the foundation of the total career-selection process. Values, as used in this guide, are an affective behavior which consistently demonstrate what a person cherishes.

- (2) One's value system is a highly individual matter and can only be judged by the individual for himself.
- (3) Values are learned. They may be learned through exploration and free choice or through indoctrination.
- (4) Values affect the career-selection process in the following ways:
 - (a) Goodness or badness of possible alternatives
 - (b) Objectives a person seeks
 - (c) What action he will take
 - (d) The amount of risk he will take
 - (e) What information is required to make a decision
 - (f) How a person evaluates the data collected
 - (g) The strategy used for deciding
 - (h) The judgment of the outcome

Many people do not take the time to question what they value when making a career choice-selection. Therefore, an important objective in teaching this process is to help students identify and clearly define what they do value.

b. Use of information in the career choice-selection process

(1) Collecting information

Learning to find information, i.e., where to go, what to seek, and what to ask are necessary skills. A person may think that he is deciding among the only alternatives available, but if his alternatives could be increased, he could increase his freedom of choices.

- (a) Identifying alternatives
- (b) Acquiring knowledge of and projecting possible outcomes
- (2) Evaluating information
 - (a) Consequences of various actions
 - (b) Determining relationship between action and outcomes
- (3) Utilizing information
 - (a) Increasing alternatives
 - (b) Narrowing alternatives
 - (c) Estimating probability of outcomes
 - (d) Planning a course of action

One of the most difficult things about any decision-making process is its uncertainty. In order to deal with this element, the selector must develop all the resources he can. By knowing how to collect, evaluate, and utilize information, the skilled selector can increase the probability of favorable, satisfying outcomes.

- c. Use of an effective strategy for converting information into action
 - (1) Strategy, as used in this guide, is the selector's plan for deciding how he will obtain his outcome.
 - (2) Different strategies are used in different situations because the individual's values differ according to the risks he will take and the rank he places on the outcome.
 - (3) Most common risk strategies
 - (a) Wish strategy - Ignore risks completely; choose action that could lead to the most desirable outcome

- (b) Escape strategy - Avoid risking the worst; choose action that will most likely eliminate the worst possible outcome
- (c) Safe strategy - Take the best odds; choose the action that will most likely bring success
- (d) Combination strategy - Get the best combination of low risk and desirable outcome; choose the action that has both high probability and high desirability

Other types of strategies exist, such as intuition, impulse, etc.. But in crucial choices, a person should use a procedure that will give him the best chance of getting the outcome that he desires.

- d. Steps in making a well-considered career choice selection, the student should:
 - (1) Identify and limit the career selection to be made
 - (2) Know what is important to him
 - (3) Know what he wants to accomplish
 - (4) Examine the data on hand
 - (5) Seek and evaluate new information
 - (6) Assess the risk in choosing each alternative available
 - (7) Assess the cost in selecting each alternative available
 - (8) Develop a plan to attain what he desires

2. Career choice-selection diagnostic instruments

Vocational guidance tests hold a sufficiently high degree of predictive power which may be of substantial practical value in counseling students. The results of such tests will help the individual to achieve a more accurate picture of his potentialities,

his talents, interests, values, and personality characteristics. The greater the degree of self-understanding an individual has, the more likely he is to make realistic, satisfying educational and vocational choices.

Yet the selection of vocational tests is not a simple matter. The American Psychological Association's *Standards for Educational and Psychological Tests and Manuals* presents over 150 specific statements classified as essential, very desirable, and desirable. The statements are categorized into six areas: dissemination of information, interpretation, validity, reliability, administration and scoring, and scales and norms.

Listed below are various assessment tests that may be of value. Sources of tests are listed in Appendix C.

a. Educational inventories

Educational Interest Inventory
Survey of Study Habits and Attitudes

b. Personality inventories

California Psychological Inventory
Edwards Personality Inventory
Edwards Personal Preference Schedule
Kuder Personal Preference Survey

c. Vocational interest inventories

Career Planning Program
Gordon Occupational Checklist
Minnesota Importance Questionnaire
Minnesota Vocational Interest Inventory
Ohio Vocational Interest Survey
Strong Vocational Interest Blank
The Self-Directed Search
How Well Do You Know Your Interests?
California Occupational Reference Survey
Kuder Occupation Interest Survey
Kuder General Interest Survey

d. Vocational tests

Daily Vocational Tests
Edanigan Aptitude Classification Tests
Vocation Planning Inventory
Kuder Vocational Preference Record

e. Work values inventories

Hall Occupational Orientation Inventory
Work Values Inventory

When using each instrument, one must be sure that the student understands the purpose, the nature and the use of the results to be obtained. The student should be involved in the analysis of the results. Such steps will help the student to see the meaningfulness of the diagnosis. It will enable him, also, to use the results more effectively.

The remaining parts of the instruction guide represent selected experiences that an instructor may provide for students.

Learning Activities

A. Out-of-class activities

1. Field trip(s) by individual student or groups of students to become familiar with and skilled in the use of various resource centers in his community. Examples are:

School library	Industries
Public library	Businesses
Court house	Professional Institutions
Newspaper	
2. Interviews by student(s) with person(s) presently employed in a career area of interest to him. The student should seek to learn as much as possible about a vocation.
3. Interviews by student(s) with person(s) teaching the occupational skills in a cluster of interest to him.
4. Reading of occupational oriented materials

B. In-class activities

1. Brainstorming sessions

This technique provides a versatile, creative, mind-expanding way of thinking and produces many useful ideas on a given subject in a short period of time. Some guidelines are:

- a. Express no negative evaluation of ideas presented
- b. Work for quantity, not quality
- c. Expand on ideas of others
- d. Encourage "far-out" ideas
- e. Record each idea
- f. Set a time limit for activity and stick to it

2. Role playing and simulation games

These activities allow students to vicariously explore a particular problem and/or situation, to learn cause-effect relationships, and to investigate alternate strategies and their consequences. They improve learning efficiency by providing for students motivation by insuring student involvement, by providing a framework for problem-solving and/or career choice-selection, and by permitting self-directed learning. Examples are:

The Career Game
Games People Play
Group Therapy Game
Human Relations Kit
Insight
Sensitivity
Society Today

3. Individual interviews with a counselor or advisor

Course planning
Progress in various subjects
Career planning
Personal counseling
Feedback from standardized group and
and individual testing

4. Work experience both inside and outside school
5. Films, filmstrips, tapes, recordings on specific human relations problems and occupations
6. Reading current materials
7. Use of subject matter in various classes to facilitate vocationalization
8. Daily feedback to student on his progress in various school subjects through instructors' comments, reactions, quizzes, tests, etc.
9. Use of resource people in various occupations
10. Self-directed learning programs which teach the individual the steps to take in effective problem solving and decision making.
11. Model reinforcement

Postassessment

The student demonstrates, through observable behavior, his ability to justify his occupational choices in terms of situations, issues, purposes, and consequences rather than in terms of escape or wishful strategies.

The student considers five different categories of upper division institutions, chooses one, and defends his choice.

The student identifies, assesses, and defends, orally or in writing, his analysis of possible steps he might take to minimize his limitations and maximize his assets.

The student, in a simulation game, identifies what decisions he must make in the future to obtain his

vocational goal. He should also identify alternate careers (Appendix C).

From a dramatization portraying a number of different ways of valuing different methods of handling daily events, the student can consistently identify and describe the value set with which he feels most comfortable.

*Instructional Guide for
Occupational Cluster Concept*

Introduction

Selecting a career can be a difficult task. Some students seem to know exactly what vocation they will pursue, and the choice seems right for them. A much larger group appears to be undecided about a specific career or a major field of interest. Yet, for both groups, it is important to have as much information as possible on many careers because our society is changing very rapidly and some jobs are becoming nonexistent while others are expanding.

Career education's main emphasis is to prepare all students better for the world of work. Two basic components of the career education process are an exploration and knowledge of broad occupational areas and a knowledge of the educational avenues leading to the attainment of specific careers. To aid in the accomplishment of these tasks, career education is being structured around the occupational

cluster concept. This concept attempts to offer a job classification system which presents an orderly arrangement of broad career areas. By becoming knowledgeable of the occupational possibilities in a career cluster which interests him, the student becomes aware of the various career options that are available.

Two occupational cluster systems have been identified by the researcher: (1) The U. S. Office of Education has designated fifteen major occupational clusters from an analysis of over thirty thousand occupations. The prime objective of this system is to aid in the formation of positive attitudes of occupations in this country and increased information about one's interests and job requirements. (2) The Center for Vocational and Technical Education at Ohio State University has developed an occupational bi-dimensional matrical system. The first matrix consists of twelve broad occupational areas and seven career levels dimension (unskilled to executive positions) which are incorporated at the awareness and orientation phases of career education. The second matrix adds job-functional categories at the exploration phase. The prime objective of this system is to provide the student with a broad awareness of the spectrum of careers and of the general place of these careers on the levels dimension. It also seeks to provide the student with a realistic and systematic way of

conceptualizing various possibilities for his own career development.

The writer, while recognizing the importance of the career levels dimension, will utilize the U. S. Office of Education's system. The career levels dimension is incorporated in the comprehensive school-based model at the elementary and junior high school grades. This study is directed to community junior college personnel. Also, the system by the U. S. Office of Education offers a broader coverage of occupations and emphasizes the changing and emerging fields in our developing technological society.

The purpose of this instructional guide is to cite the fifteen occupational clusters as designated by the U. S. Office of Education, to identify broad and general areas of careers under each, and to provide learning experiences that will provide an in-depth insight into families of occupations and aid students in making wiser career choices.

Rationale

Occupational classification schemes provide ways of examining the country's occupational structure. Since one's occupation is the primary structuring element of our society, such classifications are valuable in that they provide a framework to understand the total social system.

The occupational cluster concept categorizes careers into groups of occupations which are related because they

include similar or common teachable skills and knowledge requirements. This concept is based on the recognition that commonalities exist within a family of related occupations. By providing instruction in a family of related occupations instead of an in-depth preparation in one narrow task area, the student will be provided with the flexibility and adaptability which should allow him to make adjustments to rapidly changing occupational requirements.

A search of the literature concerning the cluster concept of career education reveals that no set pattern of occupational clusters exists. However, by using the designers of the U. S. Department of Health, Education, and Welfare and the most recent editions of *Encyclopedia of Career and Vocational Guidance*, the *Occupational Outlook Handbook*, and the *Dictionary of Occupational Titles* broad categories and examples of careers may be cited. Vestal has provided a detailed analysis of these occupational clusters which may serve as a point of departure in utilizing this concept (Vestal, 1972, 54-417).

General Objectives

The major goal of this guide is to provide the student with a knowledge of the occupational clusters concept of career education. Learning opportunities will be developed to provide experiences:

- A. To identify the general careers in the occupational clusters concept
- B. To become knowledgeable about the various career options available
- C. To gather data about a career of interest
- D. To select a career consistent with knowledge of occupation requirements
- E. To select alternative careers in career planning

Methods of implementation of the general objectives of this guide are numerous. Examples are:

- Reports - research projects
- Field trips
- Resource people
- Student interviews
- Panel discussions
- Audio visual materials
- Role playing and simulated experiences
- Student group work

The teacher should attempt to incorporate as many of these methods as possible so that a student will be provided with an in-depth exploration of an occupational cluster of interest to him.

Behavioral Objectives

- A. The student will formulate career plans consistent with knowledge of the occupational requirements of the career.
- B. The student will formulate and rank career alternatives consistent with knowledge of occupational requirements of career.
- C. The student will demonstrate, orally or in writing, an awareness of the educational training requirements for a specific occupation.

- D. The student will demonstrate through discussion an awareness of personal characteristics and behaviors that are viewed as desirable for employment in a specific occupation.
- E. The student will demonstrate, orally or in writing, an awareness of the employment changes that are continually occurring in the economy.
- F. The student will plan a strategy for attaining a specific career choice within one of the major occupational families.

Preassessment

The student will describe in a written essay his career plans. Attention must be given to educational and training requirements of career choice, his personal characteristics and behaviors that are desirable in the chosen career, and the long-range employment possibilities of the career.

The student will describe, orally or in writing, his alternative career plans. Knowledge of the awareness skills stated above must be included.

Content

The fifteen occupational clusters are listed below. Under each heading is a list of broad occupational areas as classified by Vestal (1972, 54-417). A more detailed breakdown of the broad areas is located in Appendix D.

- 1. Agribusiness and Natural Resources
 - a. Support and Regulations
 - b. Research
 - c. Forestry
 - d. Land and Water Management
 - e. Fisheries and Wildlife

- f. Mining and Quarrying
- g. Petroleum and Related Products
- h. Productive Agriculture
- i. Processing and Marketing
- j. Service

2. Business and Office

- a. Accounting
- b. Computer
- c. Secretarial Science
- d. Management
- e. Personnel
- f. Finance - Insurance - Real Estate
- g. Office (Clerical)

3. Communications and Media

- a. Journalism
- b. Motion Picture
- c. Telephone and Telegraph
- d. Recording Industry
- e. Radio and Television Broadcasting
- f. Satellite and Lazer Transmission

4. Construction

- a. Wood
- b. Metal
- c. Masonry
- d. Electrical
- e. Finishing
- f. Heavy Equipment Operations
- g. Engineering and Support Services

5. Consumer and Homemaking Education

- a. Food
- b. Housing and Household Equipment
- c. Textile and Clothing
- d. Family Economics and Home Management
- e. Family Relations and Child Development
- f. Extension Service

6. Environment

- a. Pollution Prevention and Control
- b. Disease Prevention
- c. Environmental Planning
- d. Resource Control

7. Fine Arts and Humanities

- a. The Visual Arts
- b. Occupations in Writing
- c. The Performing Arts
- d. Architecture
- e. Religion and Theology
- f. Languages and Linguistics
- g. History and Museums

8. Health

- a. Mental Health and Mental Health Services
- b. Medical and Biological Science Services
- c. Dentistry and Dental Science Services
- d. General Hospital and Medical Office Related Occupations
- e. Medical Emergency Services
- f. Administration of Health Services
- g. Personal and Community Health Services
- h. Pharmaceutical Science and Services
- i. Professional Medical Supportive Personnel
- j. Medical Professions

9. Hospitality and Recreation

- a. Commercial and Noncommercial Travel Bureaus
- b. Travel Agencies
- c. Transportation
- d. Public, Industrial, and Private Recreation
- e. Recreation Concerned with Natural Resources

10. Manufacturing

- a. Management
- b. Scientists
- c. Engineers
- d. Technicians
- e. Craftsmen
- f. Skilled Workers
- g. Semiskilled Workers
- h. Unskilled Laborers

11. Marketing and Distribution

- a. Marketing Management
- b. Market Research and Analysis
- c. Purchasing
- d. Sales Promotion and Training
- e. Selling
- f. Physical Distribution
- g. Related Business Services

12. Marine Science

- a. Research
- b. Mineral and Chemical Extraction
- c. Off-Shore Drilling
- d. Fishing
- e. Aquaculture
- f. Marine Technology and Engineering
- g. Surface and On-Shore Support

13. Personal Services

- a. Domestic Services
- b. Lodging and Related Services
- c. Barbering, Cosmetology, and Related Services
- d. Dry-cleaning, Laundry, and Apparel Services
- e. Stewards, Attendants, and Miscellaneous
Personal Services
- f. Domestic Animal Care
- g. Food and Beverage Preparation and Service

14. Public Services

- a. Administration and Regulatory Services
- b. Urban Development
- c. Education
- d. Protective Services
- e. Post Office
- f. Public Utilities
- g. Public Health
- h. Labor Affairs
- i. Public Transportation
- j. Social Services, Rehabilitation, Correction
- k. Park and Recreation

15. Transportation

- a. Highway Transportation
- b. Rail Transportation
- c. Airborne Transportation
- d. Pipeline Transportation
- e. Water Transportation

The remaining parts of the instructional guide represent selected experiences that an instructor may provide for students.

Learning Activities

A. Out-of-class activities

1. Field trip(s) by individual student or groups of students to observe occupational cluster models that are of interest.
2. Establishment of provisions for cooperative education (work experience) through local businesses and industries so students may experience short-term "hands-on" experiences and/or more in-depth knowledge of a career.
3. Interviews by student(s) with person(s) presently employed in a career area of interest. Student(s) should have expressed a lack of information or knowledge so that the discussion is directed by student(s).
4. Interviews and discussion groups with persons who are teaching or supervising in occupational cluster areas so that student(s) may observe educational facilities and/or activities.
5. Utilizing local resource centers, the student will research a career choice of interest to determine the suitability and long-range employment opportunities. Attention should be given to factors which influence career choice. These factors include the following:

Self-limiting

Intellectual ability	Perseverance
Aptitude	Punctuality
Skills	Personality type
Motivation	Vocational maturity

Self-directing

Values
Interest
Perceived prestige of career
Perceived stereotyped attitude toward
career
Life goals

Outer-limiting

Rural - urban	Requirement of occupation
Accessibility	Accessibility to educational opportunities
Scope of occupational opportunities	

Outer-directing

Social class expectations	Peer influence
Family expectations	Community attitude
Educational influence	Image of career

B. In-class activities

1. Activities to reinforce out-of-class activities

- a. Role playing. Experiences should be provided to help students become aware of what to expect on field trips, interview activities. Students may be able to project themselves into a given situation so as to ease their fears and apprehension as well as to become knowledgeable of various work roles and/or job situations.
- b. Simulation Games. Simulation games allow students to vicariously explore careers as well as educational opportunities. Examples are:

Life Career Game
Insight
Careers
The Career Game
Job Experience Kit
Life Career

Sources and costs of simulation games are located in Appendix C.

- c. Preparation for field trips. Following activities should be discussed:
 - (1) Purpose of trip should be clear to all students

- (2) Discussion of data that trip can provide
 - (3) Development of background material by using reference sources
 - (4) Specific points to be observed should be noted
 - (5) Safety and behavior patterns should be reviewed
2. Activities to strengthen career decision-making skills
- a. Administration of aptitude and vocational discrimination tests. Examples are:

Aptitude

Differential Aptitude Test
The General Aptitude Test Battery
The Daily Vocational Test

Discrimination

The Strong Vocational Interest Blank
The Kuder Preference Record - Vocational
The Ohio Vocational Interest Survey
Minnesota Vocational Interest Inventory
The California Occupational Preference Survey

Purpose, format, and evaluation of test results should be explained before the test is given. Students should be allowed to ask questions freely.

- b. Class discussion of career choices. Total class participation should be encouraged so that the sharing experience becomes a learning experience for all.
- c. Students could visit the career information center on campus and discuss career choices and alternatives with a counselor.
- d. Class visitations by persons who represent various careers, jobs, and educational institutions. Visitors offer information about their

vocations, and students are free to talk with the presenters.

- e. A Career Day activity, similar to College Night, could become an annual activity.

3. Supplementary materials

a. Audio-Visual materials

A large number of films, filmstrips, tapes, recordings, and video cassettes are available which deal with aptitudes, skills, interests and their relationship to the world of work. Discussions centering around decision-making, careers, and employability skills should follow the presentation.

Postassessment

The student analyzes, orally or in writing, his present competency in skills necessary to his broad occupational preference and develops a plan by which these skills may be enhanced where necessary.

Participating in a work-study or part-time job experience, the student is able to list the advantages and disadvantages such a job might offer to him in terms of his interests and values.

The student tests his broad occupational choice by systematically relating it to his achievements in courses, work experience, and extracurricular activities.

The student produces a plan which indicates ways of accomplishing his alternative career goals if his first career choice is not attained.

The student develops a plan of access to his next step after leaving the community junior college. The plan should include occupational and/or educational steps, list of possible alternatives, whom to contact, application dates, financial investment, personal characteristic to support choice.

The student verbalizes feelings of competence and adequacy in career choices. These choices must be based on knowledge of self and of occupation, and the ability to judge the choices in terms of issues, purposes, and consequences rather than in terms of wishful thinking.

CHAPTER V

EVALUATION OF INSTRUCTIONAL GUIDES

In an effort to secure an evaluation of the guides, the three instructional guides in Chapter IV were submitted to a panel of five noted educators in the community junior college and occupational/technical fields. They were asked to critically analyze the three guides in terms of their strengths and weaknesses, whether they are based on sound postulates and assumptions, whether they are based on the best knowledge available, whether they will contribute to the development of skills in career awareness, self-awareness, educational awareness as well as an understanding of the economic structure, and if it is feasible to incorporate such activities into the curriculum. They were asked, also, to make any comments that they felt were appropriate.

Strengths and Weaknesses

There was agreement about the strengths of the guides. All evaluators responded that there was little that they could recommend to improve the guides. Some general comments were:

You have done a very fine piece of work and I have no critical statements to make for the improvement of its contents. Certainly, it has focused attention upon an area of information that is greatly needed.

The guides are excellent.

. . . it is clear that you have had much good advice in connection with the assembly (of) the three guides, since there is virtually nothing that I can suggest to you that can improve them.

I think that you have an exciting dissertation that will make a real contribution to your college, and I am pleased to be associated with you in this important project.

The ways of improving the guides as suggested by the panel will follow. One evaluator felt that greater continuity could be achieved if each section of the guide was preceded by a statement indicating why such activities are recommended. The writer does not agree with this suggestion. To do so, would alter the module format and could present information that would become repetitious and might lead to a loss of interest by the reader.

Three persons indicated that the extensive list of occupations listed under the Content section of the guide on Occupational Cluster Concept might be placed at the end. An abbreviated form, they suggested, would keep the reader from becoming "lost in a sea of occupations." The writer concurs with this recommendation and has revised the guide accordingly.

One evaluator recommended that the introduction to the guides should be expanded, because "we can never assume

a high level of sophistication and understanding on the part of the people in the field." The writer, considering that a reader may not read the entire dissertation but only the chapters which contain the instructional guides, feels that to incorporate this suggestion would lead to the repetition of material presented in Chapter II.

Postulates and Assumptions

There was general agreement that the postulates and assumptions on which the instructional guides were based were valid. One reviewer indicated that the postulates and assumptions were not as clear cut in their definition and statements as were the guides and suggested an expanded introductory paragraph. The writer concurs and has revised the introduction and changed the wording of several postulates and assumptions on pages 9 and 10 in Chapter I to make them more specific.

A question was raised by two of the members of the panel regarding the term "specialization" in postulate number three on page 9. The word here refers to the practice of requiring courses which have a direct connection with one's vocational choice at the beginning of course work. This is in contrast to the traditional procedure that requires one to complete general education courses as a prerequisite to specialized job preparation courses. At

the community junior college, students in occupational/technical programs generally receive "hands-on" experiences as they fulfill the general education courses in his program.

The phrase "simple job skills" in postulate six on page 9 in Chapter I was questioned by one of the occupational specialists. It was indicated that while this is true, not all of the associate degree programs could be described in this manner. The writer feels that the phrase which follows the one stated above, namely, "to associate degree programs," points up the high level of specialization provided in the total occupational/technical area.

Value of Instructional Guides

The panel of evaluators agreed that the guides were based on the best knowledge available and that they would contribute to the development of skills in career awareness, in self-awareness, in educational awareness as well as an understanding of the economic structure of the economy. Some of the general comments were:

I can see widespread use of these three guides that will indeed meet an urgent need in the career education field.

I have a feeling that your dissertation is certainly going to be of use and value to publishers in this important field.

I am especially impressed with (the) instructional guide on the use of reference materials. This is an area that befuddles most students and I am pleased not only with the content . . . but also with the reading level built into it.

. . . you have developed well your premises and the instructional guides are well-written and targeted on the development of specific understanding in your students.

Feasibility

That the instructional guides are feasible was generally accepted by the evaluators. However, one of the respondents made the point that many people who conduct educational programs in community colleges do not agree with the basic premise that "all education is career education." The writer concurs with this position and recognizes that there is likely no way of insuring that all instructors of general education courses at community junior colleges will accept the intentions of the guides. However, the changing nature of society and the social forces which influence academic changes may help to secure support for the significance of the guides.

Summary

In evaluating the instructional guides, the panel of educators concurred that they are based on valid postulates and assumptions, are well done as regards to content and activities, and are feasible. Although there were comments on the need to refine some definitions and to provide for greater continuity and transition in the guides, they all

agreed that the instructional guides would make a worthwhile contribution as a means of providing an avenue for incorporating career education components into the general education courses which are required of all students at the community junior college.

CHAPTER VI

SUMMARY AND CONCLUSIONS

This dissertation has proposed to develop a plan whereby career education concepts may be incorporated into the general education program of the community junior college. The means advanced in this study have been the preparation of three instructional guides which suggest to the instructional personnel how specified career education components may become an integral part of any course. In support of the guides, it was shown that the role of the community junior college in the career education process has not been as clearly defined as the roles of elementary and secondary schools but that an emerging structure does exist. Based on the current philosophy and practices of the community junior college, a set of postulates and assumptions were offered as a basis for the incorporation of career education into the general education core. These data were cited in Chapter I.

Chapter II examined the development and nature of career education, the growth and function of the community junior college, and current theories in the career development process. In addition, there was presented a review of what is presently taking place in Florida's public community

junior colleges as it relates to providing components of career education to all students. This information was obtained from a review of the catalogs of all public community colleges in the state.

The catalogs revealed that none of the institutions reported the infusion of a comprehensive career education program into the community junior college curriculum. A majority indicated that provisions were made for students who desired career information services, but that this was generally limited to printed materials and interest, ability, and aptitude tests. All services were on a voluntary basis. There was no indication that any provisions were made to ensure that all students have an opportunity to benefit from the elements of career education.

However, the literature review indicated: (1) that half of the freshmen have no serious educational goals or have plans that are so unrealistic, according to their abilities, that they are not obtainable, (2) that the majority of students enrolled choose a transfer curriculum, and (3) that many of these students are unrealistic about their academic abilities, their career selection and/or unspecified limitations. Therefore, it is clear that until all students entering higher education have benefited from the comprehensive school-based model of career education, opportunities should be provided to help students develop

skills and competencies in certain career education elements, namely, self-awareness, career awareness, educational awareness, and economic awareness so that they will be as knowledgeable as possible as they select and prepare for a life's vocation.

In order to obtain firsthand data on the current status of career education programs in Florida community junior colleges, interviews were held with the Deans of Academic Affairs (or comparable title) of six colleges. Through these visitations, data were obtained on the institution's current position on career education; the nontraditional learning strategies utilized by the faculty; the opportunities for all students to develop skills in career awareness, self-awareness, educational awareness, and economic awareness; the types of counseling services available; the status of on-going career education programs; and plans for future development in this area. It was found that opportunities are available, but they are required only of occupational/technical students. This information was cited in Chapter III.

The data derived from Chapters II and III provided the bases on which the instructional guides were prepared and presented in Chapter IV. The criteria for the guides were that:

1. They are based on the best knowledge available.

2. They are based on valid postulates and assumptions.
3. The guides are feasible.
4. The guides will contribute to the development of skills in career awareness, self-awareness, educational awareness, and economic awareness.

The subject areas of the instructional guides are the use of reference materials, career choice-selection skills and the occupational cluster concept. These phases of the career education concept were selected because the literature supported the writer's findings that at this educational level the most needed phase of the program was the development of skills in the selection of realistic, attainable career choices. Thus students would benefit greatly from being provided with an increased knowledge of what career options are available to them, what they must know about themselves and about the economy, and what skills they must obtain in order to make wiser career selections. The guides on the use of reference materials and career choice-selection skills were developed to demonstrate how these awareness skills may be incorporated into any course of study.

The final step was to secure critical analysis of the guides by noted persons in the community junior college and occupational/technical fields. Their evaluations indicated that the guides have focused attention upon an area of information that is greatly needed and that they will meet an urgent need in the career education field. Their responses were presented in Chapter V.

On the basis of this project, it may be concluded that the Florida community junior college system presently possesses an operating framework to incorporate career education components into its general education program and that the infusion of the career education components is timely and important.

The dichotomy which has existed between the transfer program and the technical program is yet another reason for considering why career education components must be made accessible to all students. Many community colleges are striving to move away from the bilateral relationship of these two programs. They are seeking ways and means for helping all students to make realistic career choices. Not only was this study designed to provide one way of accomplishing this task, but more importantly, such a plan becomes a means for the community junior college to more adequately fulfill its mission to its student constituency. By providing all students the opportunity to learn what career options are available, by exposing them to careers which interest them, by providing them with the requisite skills necessary for the careers of their choice, and by helping them develop a career plan which is realistic and obtainable, the community junior college would fulfill more completely its philosophical commitment.

The project presented here is not all-inclusive. It has been offered as one method which can be useful in

an attempt to make the components of career education available to all community college students. Therefore, it is recommended that there be further research and experimentation in this area. Some possibilities for future research are:

1. The search for new methodologies or for ways to apply existing ones to aid in the integration of career education components into the curriculum
2. The devising and refining of methods of counseling techniques and procedures which would be supportive of the career education concept
3. The development of designs for the training (pre-service and in-service) of professional personnel in career education concepts
4. The development of procedures for follow-ups and placement for students who have participated in career education programs to determine whether the programs have been successful in providing skills in career awareness, self-awareness, economic awareness, and educational awareness.

APPENDIXES

APPENDIX A

FLORIDA PUBLIC COMMUNITY JUNIOR COLLEGES
WHOSE CATALOGS WERE SURVEYED FOR INFORMATION
RELATIVE TO CAREER EDUCATION PROGRAMS

Brevard Community College - Cocoa
Broward Community College - Fort Lauderdale
Central Florida Community College - Ocala
Chipola Junior College - Marianna
Daytona Beach Community College - Daytona Beach
Edison Community College - Fort Myers
Florida Community College at Jacksonville - Jacksonville
Florida Keys Community College - Key West
Gulf Coast Community College - Panama City
Hillsborough Community College - Tampa
Indian River Community College - Fort Pierce
Lake City Community College - Lake City
Lake Sumter Community College - Leesburg
Manatee Junior College - Bradenton
Miami-Dade Junior College - Miami
North Florida Community College - Madison
Okaloosa-Walton Junior College - Niceville
Palm Beach Junior College - Lake Worth
Pasco-Hernando Community College - Dade City
Pensacola Junior College - Pensacola
Polk Community College - Winter Haven
Santa Fe Community College - Gainesville
Seminole Junior College - Sanford
South Florida Junior College - Avon Park
St. Johns River Junior College - Palatka
St. Petersburg Junior College - St. Petersburg
Tallahassee Community College - Tallahassee
Valencia Community College - Orlando

APPENDIX B

LETTERS AND INSTRUMENT USED IN VISITATIONS AND
EVALUATION OF INSTRUCTIONAL GUIDES

Dr. John E. Sands
Vice President for Academic Affairs
North Florida Community College
Highway 90 and Turner Davis Drive
Madison, Florida 32340

Dear Dr. Sands:

As my dissertation project at the University of Florida, I have selected to develop instructional guides to incorporate career education components into the general education curriculum of the community junior college.

One phase of my instrumentation is to visit selected community junior colleges in the state to ascertain what is being done presently to incorporate selected career education components into the general education program. North Florida Community College has been chosen as one of the colleges.

A copy of the questionnaire to be used as a guide in the discussion during my personal visitation is attached.

I would greatly appreciate it if you would consent to aid me in the completion of my research data.

Thank you for any consideration that you can give my request.

Sincerely,

(Miss) Helen V. McLean

cal

Mr. Kenneth G. Skaggs
Occupational Educational Specialist
American Association of Community
and Junior Colleges
1 Dupont Circle
Washington, D. C. 20036

Dear Mr. Skaggs:

As my dissertation project at the University of Florida, I have chosen to develop instructional guides to incorporate career education components into the general education program of Florida community junior colleges.

One phase of my instrumentation is to submit the guides to several outstanding leaders in the field for their reactions as to the strengths and weaknesses of the guides, whether they are based on the best knowledge available, whether they are based on sound postulates and assumptions, and whether they will contribute to the development of specified career education skills.

I have talked with Dr. Johnnie R. Clarke, St. Petersburg Junior College, and Dr. John E. Roueche, The University of Texas, about my project and both have agreed to react to it.

As a national leader in the area of Occupational Education at the community college level, I would greatly honored if you would consent to give me your personal reactions to the guides.

Thank you for any considerations that you can give this request.

Sincerely,

(Miss) Helen V. McLean

cal

QUESTIONNAIRE TO ASCERTAIN THE INCORPORATION OF CAREER EDUCATION COMPONENTS
IN THE GENERAL EDUCATION PROGRAM OF SELECTED COMMUNITY JUNIOR COLLEGES

General Information

1. What is the present total enrollment of the college? _____

Transfer percentage? _____

Occupational/Technical percentage? _____

2. Does the college have stated philosophy and objectives
for career education goals? Yes _____ No _____

If answer is yes, please attach a copy.

3. Does the college provide entry/exit admission? Yes _____ No _____

If yes, in what subject area(s)? _____

4. Does the college make use of modular instructional
packages to facilitate easy entry/exit procedures
within a given course? Extensive _____
Some _____
Little _____
None _____

In what subject areas? _____

5. Does the college offer flexible instructional
approaches to accommodate different learning
styles? Extensive _____
Some _____
Little _____
None _____

In what subject areas? _____

6. Does the college utilize behavioral objectives in
course syllabi? Extensive _____
Some _____
Little _____
None _____

In what subject areas? _____

Note: The questionnaire was used as an interview guide during the personal
visitations with the Deans.

General Education

7. What general education courses are required of all students?
8. What criteria were used to add these to the curriculum?
9. Does the general education program provide opportunities for students to become knowledgeable about career clusters? All _____
Some _____
None _____
- How? Give evidence _____

10. Are opportunities provided to allow students to obtain experiences in career direction-setting? All _____
Some _____
None _____
11. Are opportunities provided students to learn as much as possible about themselves so that they may make a wiser career selection? All _____
Some _____
None _____
- How? Give evidence _____

12. Are opportunities provided which allow students to obtain exploratory experiences in their own career interests? All _____
Some _____
None _____
- How? Give evidence _____

13. Are opportunities provided which allow students to develop skills in the management of knowledge? All _____
Some _____
None _____
- How? Give evidence _____

14. Are opportunities provided which allow students to develop competencies in self-management? All _____
Some _____
None _____
- How? Give evidence _____

15. Are opportunities provided which allow students to develop an understanding of the occupational structure of the economy? All _____
Some _____
None _____
- How? Give evidence _____

16. Are opportunities provided which allow students to obtain knowledge of career choices? All _____
Some _____
None _____
- How? Give evidence _____

17. Are opportunities provided which allow students to obtain knowledge of career requisites? All _____
Some _____
None _____
- How? Give evidence _____

18. Are opportunities provided which allow students to become knowledgeable about the values of a work-oriented society? All _____
Some _____
None _____
- How? Give evidence _____

Counseling Services

19. What is the ratio of counselors to students in the college? 1 to 200 _____
1 to 300 _____
1 to 400 _____
20. Are certain counselors assigned to occupational counseling only? Yes _____
No _____
21. What kinds of counseling services are available to students? Educational _____
Occupational _____
Personal _____
22. Do teachers have assigned counseling responsibilities? Yes _____
No _____
- If yes, what is ratio? _____
23. Is group counseling utilized? Yes _____
No _____

24. What types of occupational counseling services are available to students?

Tests? Yes _____ No _____
Printed materials? Yes _____ No _____

Others? _____

On-going Programs

25. Are teachers and administrators aware of the career education program?

Teachers? All _____ Administrators? All _____
Some _____ Some _____
None _____

26. Does the administration support the program? Yes _____
No _____

27. Are faculty members able to suggest instructional changes? Yes _____
No _____

28. Is the community aware of the career education program and its philosophy? Yes _____
No _____

If yes, give examples of knowledge _____

29. Are efforts being made to utilize community facilities and personnel in career oriented programs? Yes _____
No _____

If yes, give examples _____

30. Is publicity given the program so that groups in the community are aware of the program? Yes _____
No _____

If yes, give examples _____

APPENDIX C

SOURCES OF SIMULATION GAMES AND DIAGNOSTIC TESTS

Simulation Games

- Careers*, Parker, Bros., Salem, Massachusetts. \$4.00.
- The Career Game*, Educational Progress Corporation, 8538 East 41st Street, Tulsa, Oklahoma. \$74.50.
- Games People Play*, The Head Box, Education Products Division, P. O. Box 4762, Clinton, Iowa. \$11.00.
- Group Therapy Game*, The Head Box, Education Products Division, P. O. Box 4762, Clinton, Iowa. \$8.50.
- Human Relations Kit*, Thiokol, McGraw Book Company, New York, New York. \$169.50.
- Insight*, The Head Box, Education Products Division, P. O. Box 4762, Clinton, Iowa. \$9.50.
- Job Experience Kit*, Science Research Associates, Chicago, Illinois. \$130.00.
- Life Career*, Western Publishing Co., Inc., New York, New York. \$35.00.
- Sensitivity*, The Head Box, Education Products Division, P. O. Box 4762, Clinton, Iowa. \$11.00.
- Society Today*, Communications Research Machines, Inc., Del Mar, California. \$6.95.

Diagnostic Tests

Aptitude Tests

- Differential Aptitude Test*, Psychological Corporation, 304 East 45th Street, New York, New York 10017. \$5.00 specimen set.
- The General Aptitude Test Battery*, Science Research Associates, Inc., 259 East Erie Street, Chicago, Illinois 60611. \$3.50 specimen set.
- The Daily Vocational Test*, Houghton Mifflin Company, 110 Tremont Street, Boston, Massachusetts. \$3.00 per specimen set.

Discrimination Tests

The Strong Vocational Interest Blank, Consulting Psychologists Press, Inc., 577 College Avenue, Palo Alto, California 94306. \$6.00 specimen set.

The Kuder Preference Record - Vocational, Science Research Associates, Inc., 259 East Erie Street, Chicago, Illinois 60611. \$2.50 specimen set.

The Ohio Vocational Interest Survey, Harcourt, Brace, Jovanovich, Inc., 757 Third Avenue, New York, New York 10017. \$1.75 specimen set.

Minnesota Vocational Interest Inventory, The Psychological Corporation, 304 East 45th Street, New York, New York 10017. \$1.00 specimen set.

The California Occupational Preference Survey, Educational and Industrial Testing Service, P. O. Box 7234, San Diego, California 92107. \$2.25 specimen set.

Educational Inventories

Educational Interest Inventory, Educational Guidance Inc., P. O. Box 511, Main Station, Dearborn, Michigan 48120. \$2.00 specimen set.

Survey of Study Habits and Attitudes, The psychological Corporation, 304 East 45th Street, New York, New York 10017. \$1.25 specimen set.

Personality Inventories

California Psychological Inventory, Consulting Psychologist Press, Inc., 577 College Avenue, Palo Alto, California 94306. \$1.00 specimen set.

Edwards Personality Inventory, Science Research Associates, Inc., 259 East Erie Street, Chicago, Illinois 60611. \$5.00 specimen set.

Edwards Personal Preference Schedule, The Psychological Corporation, 304 East 45th Street, New York, New York 10017. \$.75 specimen set.

Kuder Personal Preference Survey, Science Research Associates, Inc., 259 East Erie Street, Chicago, Illinois 60611. \$2.50 specimen set.

Vocational Interest Inventories

Career Planning Program, American College Testing Program, 133 North Prospect Street, Bowling Green, Ohio 43402. Administered on specific dates at test centers, 3-hour test time, costing \$6.00 per examinee.

Gordon Occupational Checklist, Harcourt, Brace, Jovanovich, Inc., 757 Third Avenue, New York, New York 10017. \$1.50 specimen set.

Minnesota Importance Questionnaire, Vocational Psychology Research, Elliott Hall, University of Minnesota, Minneapolis, Minnesota 55455. Specimen set free.

Minnesota Vocational Interest Inventory, The Psychological Corporation, 304 East 45th Street, New York, New York 10017. \$1.00 specimen set.

Ohio Vocational Interest Survey, Harcourt, Brace, Jovanovich, Inc., 757 Third Avenue, New York, New York 10017. \$1.75 specimen set.

Strong Vocational Interest Blank, Consulting Psychologists Press, Inc., 577 College Avenue, Palo Alto, California 94306. \$6.00 specimen set.

The Self-Directed Search, Consulting Psychologists Press, Inc., 577 College Avenue, Palo Alto, California 94306. \$2.50 specimen set.

How Well Do You Know Your Interests? Executive Analysis Corporation, 50 East 42nd Street, New York, New York 10017. \$3.50 specimen set.

California Occupational Reference Survey, Education and Industrial Testing Service, P. O. Box 7234, San Diego, California 92107. \$2.25 specimen set.

Kuder Occupation Interest Survey, Science Research Associates, Inc., 259 East Erie Street, Chicago, Illinois 60611. \$2.50 specimen set.

Kuder General Interest Survey, Science Research Associates, Inc., 259 East Erie Street, Chicago, Illinois 60611. \$1.65 per specimen set.

Vocational Tests

Daily Vocational Tests, Houghton Mifflin Company, 110 Tremont Street, Boston, Massachusetts. \$3.00 per specimen set.

Flanigan Aptitude Classification Tests, Science Research Associates, Inc., 259 East Erie Street, Chicago, Illinois 60611. \$3.25 specimen set.

Vocational Planning Inventory, Science Research Associates, 259 East Erie Street, Chicago, Illinois 60611. \$2.20 specimen set.

Kuder Vocational Preference Record, Science Research Associates, Inc., 259 East Erie Street, Chicago, Illinois 60611. \$2.50 specimen set.

Work Values Inventories

Hall Occupational Orientation Inventory, Follett Publishing Company, 1010 West Washington Blvd., Chicago, Illinois 60611. \$1.20 per manual.

Work Values Inventory, Houghton Mifflin Company, 110 Tremont Street, Boston, Massachusetts 02107. \$.90 specimen set.

APPENDIX D

AN ANALYSIS OF FIFTEEN OCCUPATIONAL CLUSTERS
IDENTIFIED BY THE U. S. OFFICE OF EDUCATION

A. Agribusiness and Natural Resources

1. Support and Regulations (Implementation of laws, regulations, and information)

- Inspection and Regulatory
- Trading Enforcement
- Market Stabilization
- Information and Marketing
- Conservation
- Education

2. Research (Systematic, intensive study directed to fuller knowledge of plants, animals, natural resources and the use of these by man)

- Animal
- Fruit
- Mineral
- Soil and Water
- Crop
- Marketing
- Oil and Gas
- Vegetable

3. Forestry (Developing, maintaining, cultivating, and protecting forests, forest tracts and woodlands, and harvesting their products)

- Forest Use
- Forest Protection
- Fire Control and Prevention
- Harvesting

4. Land and Water Management (Administering public lands and conserving and developing water resources throughout the United States)

- Forests
- Parks
- Rangelands
- Lakes
- Land Use
- Water Use

5. Fisheries and Wildlife (Preservation, propagation, and use of fish and wildlife)

- Propagation
- Harvesting
- Protection
- Land Use

6. Mining and Quarrying (Natural resources which furnish coal, ores, minerals, rocks, gravels, clays, and sand for energy and raw materials)

- Exploration
- Mining Operations
- Quarrying
- Safety
- Machinery Operations
- Product Grading
- Product Handling

7. Petroleum and Related Products (Production of petroleum and related products for energy to heat, cool, or power vast machinery)

- Exploration
- Drilling Fluids
- Casing
- Leasing
- Formation Running
- Cementing
- Drilling
- Tool Operation
- Pumping

8. Productive Agriculture (Producing food and fiber for man's use and the production of trees, shrubs, flowers for his aesthetic value)

- Farmer
- Orchardist
- Foreman
- Ranchers
- Vegetable Producer
- Vineyard Technicians
- Equipment Operators
- Poultryman
- Managers
- Farmworkers
- Ornamental Horticulture

9. Processing and Marketing (Procurement, purchasing, classing or grading and processing before it reaches the manufacturer)

- Brokers
- Ginning
- Dehydrating
- Buyers

Compressing
Storing
Graders
Drying

10. Service (Providing consumable supplies, equipment, services, technical assistance and other services peculiar to the production phase of agriculture)

Hatchery Operation
Field Service
Salesman
Seed Service
Fertilizer Service
Feed Service
Veterinarian
Mechanics
Feed Store
Landscaping
Artificial Breeding
Farm Equipment
Pest Control
Irrigation
Farm Communications

B. Business and Office

1. Accounting (Science, art or system of keeping, analyzing and explaining records)

Manager
Cost Accounting
Certified Public Accountant
Systems
Statistician
Machine Accounting

2. Computer (Electronic methods of storing, calculating, correlating, and selecting data of a specific nature)

Programmer
Key Punch Operator
Clerk
Data Typist
Console Operator

3. Secretarial Science (Specialization of keeping records, taking dictation, composing, editing and creative writing)

Legal Stenographer
Court Reporter
Court Clerk
Medical Stenographer

4. Management (Coordination of planning, directing, and controlling the activities of personnel)

Executive
Supervisor
Methods Examiner
Manager (Owner)
Teacher
Public Relations

5. Personnel (Recruiting, interviewing, hiring and record keeping during the working career of an individual)

Clerk
Counselor
Technician
Investigator
Administrator
Recruiter

6. Finance - Insurance - Real Estate (Science of managing money; insuring against loss; the land and what is erected, growing or affixed to it, and transactions involved in these functions)

Finance

Analyst
Bank Personnel
Auditor
Counselor
Teacher

Insurance

Attorney
Examiner
Actuary
Clerk
Teacher

Real Estate

Broker
Salesman
Clerk
Escrow Clerk
Appraiser
Teacher

7. Office (Clerical) (Duties not requiring knowledge of systems or procedures)

Clerk
Typist
Receptionist
Timekeeper
Business Machine Operators
Router

C. Communications and Media

1. Journalism (Occupations involved in the writing and editing of newspapers, magazines, and books)

Reporters
Copy and Proofreaders
Columnists and Critics
Manuscript Analysts
Specialized Personnel
Editors
Circulation Personnel
Advertising Personnel

2. Motion Pictures (Creation and production of motion pictures)

Producers
Directors
Special Artist
Camera, Lights, Sound Personnel
Film Handlers
Costume, Make-up Personnel
Scenery, Props, Special Effects Personnel

3. Telephone and Telegraph (Transmission of messages via wire and radio for both local and long distances)

Engineers
Translators
Administrators, Specialized
Managers, Supervisors
Technicians, Managers
Clerical, Sales Personnel
Bench Workers
Electrical Workers
Production, Distribution Personnel

4. Recording Industry (Creation and production of recorded sound)

Sales Personnel
Administrators
Production Personnel
Engineers

5. Radio and Television Broadcasting (Creation, production, and transmission of radio and/or television broadcasts)

Broadcast Preparation Personnel
Broadcast Presentation Personnel
Transmission Personnel
Administrator, Sales Personnel
Service Personnel
Supportive Personnel

6. Satellite and Lazer Transmission (Transmission of aural and/or visual matter via satellite or lazer)

This field is so new that jobs within it have not yet been delineated.

D. Construction

1. Wood (Utilizing wood, wood products, and wood building systems as the primary building, assembling, and working materials)

Framing
Flooring
Forming
Trimming
Roofing
Material Distributing

2. Metal (Utilizing metal, metal products, and metal building systems as primary building, assembling, and working materials)

Welding
Sheetmetal Working
Plumbing
Pipefitting
Air/Cond. and Heating
Millwright
Material Distributing

3. Masonry (Utilizing masonry, clay products, and masonry building as primary building, assembling, and working materials)

Brick and Block Laying
Concrete Working
Tile and Terrazzo Working
Plastering
Material Distributing
4. Electrical (Utilizing electrical materials, related electrical components, and electrical building systems as primary assembling and working materials)

Residential Wiring
Commercial Wiring
Industrial Wiring
Material Distributing
5. Finishing (Utilizing finishing products and finishing building systems as the primary assembling and working materials)

Painting and Papering
Insulating
Glass and Glazing
Sheetrocking
Floor Covering
Landscaping
Material Distributing
6. Heavy Equipment Operators (Utilizing operation and maintenance of heavy equipment)

Equipment Operating
Equipment Maintaining
Material Distributing
7. Engineering and Support Services (Utilizing engineering and technical-supportive training)

Construction Drafting and Arch. Drawing
Estimating
Expediting
Surveying
Testing and Inspecting

E. Consumer and Homemaking Education

1. Food (Specialist engaged in development and improvement of foods through chemical analysis, in research of human nutritional needs, in institutional food service management, or in sales promotion of food products through advertising, public relations, or consumer service positions)

Research and Testing
Food Service Management
Sales Promotion
Journalism

2. Housing and Household Equipment (Specialists in areas concerned with more beautiful and efficient design and decoration of housing, the development and improvement of household equipment and products through research and testing, or the promotion of household equipment and their related products and utilities through advertising, public relations, or consumer service positions)

Research and Testing
Sales Promotion
Consulting, Housing Design and Decoration
Journalism

3. Textile and Clothing (Specialists involved in the development and testing of textiles through chemical analysis, the buying and selling of textiles and clothing, sales promotion and consumer services in relation to textile and clothing, and fashion styling and designing)

Research and Testing
Merchandising
Sales Promotion
Fashion Styling and Designing
Journalism

4. Family Economics and Home Department (Specialists in how the homemaker manages her work and how the family as a unit expends its time, energy and money, and often gives advice on home management and family budgeting problems)

Research
Consulting
Journalism

5. Family Relations and Child Development (Specialists concerned with all facets of family relationships, particularly the intellectual and emotional development of the child in regard to his home environment)

Research
Teaching, Pre-school
Journalism

6. Extension Service (Representative of a state college or university and/or Department of Agriculture who educates groups of homemakers and youths in such areas as selection and care of textiles, clothing, household equipment, clothes construction, management of family finances, food preparation, child care, etc.)

Stylist-in-Charge
Extension Service Supervisor
District Service Supervisor
County Home Demonstration Agent
Four-H Club Agent

F. Environment

1. Pollution Prevention and Control (Efforts to control or prevent input of undesirable materials into our environment)

Liquid Waste Treatment and Disposal Personnel
Solid Waste Treatment and Disposal Personnel
Waste Water Treatment and Disposal Personnel
Radiation Safety Engineers
Industrial Sanitation Technicians
Atmospheric and Noise Pollution Technicians

2. Disease Prevention (Attempt to control organisms that cause a nutritional deficiency of disease. Control of additives and other non-patient care measures are components of this family)

Parasite and Insect Control Technicians
Milk and Food Sanitation Technicians
Environmental Health Technicians
Pest Control Technicians
Water Quality Technicians

3. Environmental Planning (Planning for future population growth and the most beneficial land-use possible)

Land Design and Use Technicians
Urban and Rural Planning Consultants
Park and Recreational Consultants
Traffic Engineers
Industrial Environment Technicians

4. Resource Control (Enforcing laws, maintaining the status quo, and providing more enjoyment of our natural resources)

Marine Resources Technicians
Meterology Technicians
Fisheries Resources Technicians
Recreational Resources Technicians
Water and Soil Conservation Technicians
Forestry or Timber Conservation
Plant Pest and Pesticide Control
Wildlife Management Technicians
Fire Control Technicians

G. Fine Arts and Humanities

1. The Visual Arts (Design of Products and the art images used in advertising and the fine arts)

Commercial Artist and Designer
Painter and Sculptor
Photographer
Interior Decorator and Designer

2. Occupations in Writing (Communication through written forms)

Literary Writer
Technical Copy Writer
Writer for Television/Radio/Motion Pictures
Playwright
Editor
Journalist

3. The Performing Arts (Music, theatre, and the dance)

Performing Musician
Composer
Actor
Dancer
Choreographer
Technical and Stage Production Personnel

4. Architecture (Planning and designing of buildings, and the supervision of building construction)

Architect
Architectural Draftsman
Architectural Specialist

5. Religion and Theology (Ordained clergy and other religiously oriented fields)

The Clergy
Christian Science Practitioner
Religious Music, Education, Activities Director
Support Occupations

6. Languages and Linguistics (Scientific study of language and multi-lingual skills)

Scientific Linguist
Interpreter
Translator

7. History and Museums (Study of records of the past, and the use of these materials to describe and analyze past and present events, institutions, ideas and people)

Historian
Archivist
Museum and Historical Sites Occupations

H. Health

1. Mental Health and Mental Health Services (Cooperative efforts to solve problems and exert such a powerful disruptive influence on some people's lives that they bring on physical or mental illness)

Psychiatrists
Psychiatrist Aids
Psychiatrist Social Worker
Psychiatric Nurse
Psychologists
Psychometrists

2. Medical and Biological Science Service (Support and amplify the whole medical profession; medical fact finding jobs - the facts themselves being interpreted by the pathologists)

Cytotechnologists
Histologic Technicians
Blood Bank Technologist
Medical Technologist
Biochemistry Technologist
Microbiology Technologists
EKG Technicians
EEG Technicians
Radiologic Technologists
Medical Laboratory Assistants
Inhalation Therapists
Physician's Assistants
Medical Assistant
Surgical Technicians
Nuclear Medical Technologists
Veterinary Lab Technicians

3. Dentistry and Dental Science Services (Treatment Ailments or abnormalities of the gums and teeth and try to prevent their occurrence or recurrence)

Dentists
Dental Assistants
Dental Laboratory Technicians
Dental Hygienists
Dental Ceramists

4. General Hospital and Medical Office Related Occupations (Aid health services in very general ways such as record keeping and supplies, etc.; may or may not be certified or licensed)

Supervisor, Central Supply
X-Ray Clerk
Diet Clerk
Nursing Aid
Central Supply Technician
Receptionists

5. Medical Emergency Services (Responsible for responding to medical emergency calls, evaluating the nature of the emergency, taking appropriate prompt action to reduce the medical hazards to the receiving station, and serving as technical assistance to the emergency room staff of general hospitals)

First Aid Attendant
Ambulance Attendant

6. Administration of Health Services (Managing and directing all aspects of health services in hospitals, health departments, and voluntary agencies)

Hospital Administrator
Medical Officer
Administrative Assistant
Accountant
Admitting Officer
Controller
Credit Manager
Director of Volunteer Services
Executive Housekeeper
Personnel Director
Public Relations Director
Purchasing Agent

7. Personal and Community Health Services (Care of the sick and with the prevention of illness in homes, schools, clinics, and industries)

School Nurses
Public Health Nurses
Public Health Educators
Sanitarians
Sanitarian Assistants
Community Services and Health Education Officers
Home Health Aides

8. Pharmaceutical Science and Services (Promoting well-being among people in neighborhood; involved in dispensing drugs and health supplies)

Pharmacists
Pharmacy Helpers

9. Professional Medical Supportive Personnel (Not involved with direct medical treatment but most essential in total picture of medical services; integral part of patient care)

Research Nutritionists
Dietitians
Orthotists
Prosthetists
Health Physicists

Audiologists
Chiropractors
Optometrists
Pediatrists
Speech Pathologists
Manual Arts Therapists
Music Therapists
Occupational Therapists
Recreational Therapists
Industrial Hygienists
Physical Therapists
Contact Lens Technicians
Audiometrists
Occupational Therapy Aides

10. Medical Professions (Concerned with direct medical care and require strict academic preparation within the medical field and licensure by medical boards)

Medical Doctors
Osteopathic Physicians
Public Health Veterinarians
Nurse Anesthetists
General Duty Registered Nurses
Licensed Practical Nurses

I. Hospitality and Recreation (Tourism)

1. Commercial and Noncommercial Travel Bureaus
(Limited to providing public with travel information and attempting to promote goodwill)

Public Relation and/or Advertising and Public
Coordinators
Information Personnel
Libraries

2. Travel Agencies (Provide traveler with information about vacation areas and informs him of tours and accommodations agency can arrange for him)

Public Relations Personnel
Sales Agents & Agency Representatives
Clerks
Advisors

3. Transportation (Individuals who are concerned with passenger and/or tourist comfort)

Passenger Agents and Clerks
Tour Directors
Tour Conductors
Sight-seeing Company Personnel
Public Relations Personnel

4. Public, Industrial, and Private Recreation
(Commercial and Noncommercial)

Superintendents
General Supervisors
Supervisors of Special Activities
Directors of Centers
Play Leaders
Specialists

5. Recreation concerned with Natural Resources
(Recreational facilities provided by nature,
i.e., ocean and lake beaches, forests, wild-
life areas, etc.)

Information Centers Personnel
Guides
Lifeguards
Concession Attendants
Zoo Keepers and Attendants

J. Manufacturing

1. Management (Direct and indirect administration of
a manufacturing establishment to include areas of
supervision, sales, purchases, and industrial and
public relations)

President
Vice-President
Accounting Officer
Personnel Officer
Sales
Clerical
Service
Analyst
Purchasing

2. Scientists (Pure research in materials used, quality of production, and investigation of areas where products may be used)

Biologist
Chemist
Physicist

3. Engineers (Practical application of scientific findings to improve daily living)

Mechanical
Electrical
Chemical
Design
Industrial
Metallurgical
Structural
Aerospace
Nuclear
Ceramic

4. Technicians (Assist scientists and engineers and work with craftsmen)

Metallurgist
Electronics
Metallographer
Mathematician
Drafting
Computer
Safety
Technical Writer
Packaging and Storing
Testing and Inspecting
Instrument

5. Craftsmen (High level of skill and experience; frequently perform administrative and supervisory functions)

Foremen
Master Mechanics
Tool and Die Makers
Instrument Makers
Ceramics Technicians
Master Tailors
Tool Designers

6. Skilled Workers (Work in any area of the trade without direct supervision)

Engraver
Printer
Carpenter
Painter
Welder
Mechanic
Electrician
Plumber
Machinist
Pattern Maker
Baker

7. Semiskilled Workers (Operation of machines in the performance of repetitious tasks; minimum of supervision)

Sampler
Plater
Heat Treater
Equipment and Machine Operator
Apprentice
Inspector
Molder
Shaper
Blancher
Grinder
Equipment Repairman
Chemical Mixer

8. Unskilled Laborers (Performance of light and/or heavy work of a menial nature; maximum supervision)

Machine Tender	Helper
Polisher	Mixer
Puller	Packer
Compounder	Roaster
Hacklet	Weigher
Cutter	Blender
General Laborer	Shader
Skinner	Shipper

K. Marketing and Distribution

1. Marketing Management (Planning, organizing, staffing, directing, and controlling marketing activities)

General Management
Research
Sales
Promotion and Training
Distribution
Foreign Trade

2. Market Research and Analysis (Collecting, tabulating, analyzing and reporting marketing information)

Collection of Data
Tabulation
Analysis
Reporting

3. Purchasing (Buying merchandise, materials, or equipment for resale or consumption) .

Wholesale Trade
Retail Trade
Foreign Trade

4. Sales Promotion and Training (Creating a demand for a product or service, stimulating sales, and training sales personnel)

Designing and Forecasting
Advertising
Display
Demonstration
Customer Service
Training

5. Selling (Contracting and persuading customers, arranging and completing sales transactions)

Store Selling Commodities
Store Selling Services
Field Representation
Door-to-Door Selling
Exporting
Other Selling Occupations

6. Physical Distribution (Storing, handling, and transporting goods between producer and consumer)

Storage
Handling
Transportation

7. Related Business Services (Arranging credit, financing, and insurance, and performing clerical duties)

Finance
Credit
Insurance
Clerical

L. Marine Science

1. Research (Explore, survey, and analyze the physical, chemical, biological, and geophysical aspects of marine environment)

Physical Oceanography
Aquatic Biology
Meterology, Marine
Hydrology

2. Minerals and Chemical Extraction (Explore, assay, and extract minerals and chemicals for sea water and ocean floor)

Dredgemen
Mining Engineers
Metallurgical Engineers
Electrochemical Engineers
Extracting Plant Personnel

3. Off-Shore Drilling (Explore, survey, and drill for petroleum and natural gas in open water above the continental shelf from a floating or stationary rig)

Surveyors
Seismographers
Drillings
Roughnecks
Roustabouts
Tool Pushers
Derrickman
Floorman
Rig Builder
Pumper

4. Fishing (Locate fisheries and harvest fish and other marine products; vary from unskilled labor to technical skills)

Fishermen
Sponge Gatherers
Kelp Cutters
Finfish Processing Plant Personnel
Shellfish Processing Plant Personnel
Shellfish Dredgers

5. Aquaculture (Cultivate marine life in a controlled environment)

Finfish Farm Personnel
Shellfish Farm Personnel
Fish Culturist
Fish Hatchery Personnel

6. Marine Technology and Engineering (Design and construct surface and underwater vessels and instruments used for making exploration and exploitation)

Marine Architecture
Marine Drafting
Marine Engineering Personnel
Divers
Electronic Specialists

7. Surface and On-Shore Support (Wide range of support personnel who process, market and distribute marine produce; operate, maintain, and repair vessels of all kinds; in labs or computer centers)

Marine Life Processing and Distributing Personnel
Laboratory Personnel (Research and Quality Control)
Vessel Operators
Vessel Repair Personnel
Vessel Servicing Personnel

M. Personal Services

1. Domestic Services (Occupations in or about the home which render service for members of the household or their guests)

Housekeeper
Yardkeeper
Cook
Maid
Butler

2. Lodging and Related Services (Provide service or accommodations to persons in homes, boarding houses, hotels, motels, etc.)

Lodging Managers
Attendants
Maintenance Personnel
Maids and Porters

3. Barbering, Cosmetology, and Related Services (Rendering beauty and/or other related treatments to the body)

Hair Stylist
Cosmetologist
Barber
Weight-Reducing Attendant
Embalmer

4. Drycleaning Laundry and Apparel Services (Improving the appearance of or repairing such items as clothing, furnishings and accessories)

Cleaners
Presser
Laundryman
Apparel Repairmen
Tailor

5. Stewards, Attendants, and Miscellaneous Personal Services (Greeting, serving, guiding and otherwise attending to customer desires)

Baggageman
Childcare Attendant
Guide

6. Domestic Animal Care (Training and care of domestic animals)

Animal Trainer
Animal Attendant
Animal Groomer
Aquarist

7. Food and Beverage Preparation and Service
(Preparing food and beverage and serving them
to patrons in clubs, hotels, restaurants and
cocktail lounges)

Chefs
Bakers
Food Assemblers
Kitchen Personnel

N. Public Services

1. Administration and Regulator Services (Local, state,
and federal government agencies; provide regulatory
services for financial institutions, public records,
licensing, customs and immigration, and facilities)

City Managers
Accountants
Advertising Workers
Marketing Research Workers
Personnel Workers
Public Relations Workers
Purchasing Agent
Engineers
Regulatory Services - Financial
Regulatory Services - Others

2. Urban Development (Research and solve urban problems
to help cities become more convenient, comfortable,
and safe places)

Urban Planners
Environmental Scientists
Life Science Occupations
Physical Scientists
Social Sciences
Engineering and Science Technicians
Draftsmen
Food Processing Technicians
Technical Writers
Photographers
Architects
Landscaping Architects
System Analysts
Programmers
Surveyors
Electronic Computer Operating Personnel
File Clerks
Office Machine Operators

3. Education (Professional, technical, managerial, and related personnel that has been associated with the changing charter of country)

- Teaching
- Counseling
- Supervision
- Support Activities
- Transportation
- Extension Service

4. Protective Services (Conservation occupations preserving wildlife or investigating espionage and sabotage)

- Law Enforcement
- Inspectors and Investigators
- Special Services
- Military Civil Defense

5. Post Office (Applying modern marketing techniques toward improving the postal product line)

- Management
- Postmaster
- Supervisor
- Crafts

6. Public Utilities (Produces, develops markets, and distributes public utilities to the consumer)

- Water Systems
- Sanitary Service
- Electric Service
- Gas Service
- Customer Service Occupations

7. Public Health (Provide vital statistics, environmental sanitation, communicable disease control, laboratory services, maternal and child health, chronic disease control and promote adult health, and health education)

- County Health Officer
- Sanitarian
- Field Health Officer

See HEALTH

8. Labor Affairs (Supply labor demands of business and industry; protect interests of workers and maintain a healthy economy)

Employment Services
Employment Compensation
Labor Standards

9. Public Transportation (Provide jobs in such areas as rapid transit, railroads, buses and trucks, airports and terminals, traffic control, maintenance, inland waterways operation, port authorities, turnpike and tollbridges, registration and licensing and inspection)

See TRANSPORTATION

10. Parks and Recreation (Provide some form of parks and recreational facilities for year-round community activities)

See HOSPITALITY AND RECREATION

0. Transportation

1. Highway Transportation (Occupations associated with bus, truck, and taxi transportation)

Driving
Repair and Maintenance
Baggage Handling
Clerical Operations
Dispatching
Sales Representation
Parking Lot Operation
Service Station Operation
Driving Instruction
Supervision
Ticket Sales
Bus Hospitality
Traffic Management
Taxi Service

2. Rail Transportation (Occupations related to operation of railroads, streetcars, and subways)

Train Crew
Freight Handling
Passenger Service
Supervision

Clerical and Office
Repair, Maintenance and Salvage
Right-of-Way Personnel
Yard Work
Safety Inspection
Street Car Operation and Service
Ticket Sales

3. Airborne Transportation (Occupations associated with airline passenger and freight service and terminal operation and management)

Flight Crew
Supervision
Safety Inspection
Scheduling and Dispatching
Ticket Sales
Air Traffic Control
Instruction
Clerical and Office
Baggage Handling
Cargo Personnel
Parachute Rigging

4. Pipeline Transportation (Occupations connected with pipeline transportation of both solids and fluids)

Station Engineering
Supervision
Loading Rack Operations
Dispatching
Compressor Station Operation
Plumbing
Line Walkers
Safety Inspection
Maintenance and Repair
Clerical and Office

5. Water Transportation (Occupations involved in both ocean and inland waters transportation)

Ship, Tug, Barge, or Dredge Officers and Crew	
Piloting	
Harbor Control	
Wharf and Stevedoring Personnel	
Container Handling	
Safety Personnel	Bus Hospitality
Baggage Handling	Instruction
Ticket Sales	Ferryboat Operation
Clerical and Office	Canal Lock Operation

BIBLIOGRAPHY

- A First Step Toward Career Education*. Columbus, Ohio: The Center for Vocational and Technical Education. 2 vols. January, 1972. (ERIC 060 224)
- Asburg, Frank A. "Vocational Development of Rural Disadvantaged Eighth-Grade Boys," *Vocational Guidance Quarterly*, Vol. 17, No. 2 (December, 1968), 109-113.
- Bailey, Stephen K. "Career Education and Higher Education," *Educational Record*, Vol. 54, No. 4 (Fall, 1973), 255-259.
- Bender, Louis W. "Middle Manpower Utilization Through Career Education," *Community and Junior College Journal*, Vol. 43, No. 8 (May, 1973), 16-17.
- Berg, Ivar. *Education and Jobs: The Great Training Robbery*. New York: Praeger Publishers, 1970.
- Bingham, William (ed.). *Behavioral Outcomes for Career Education*. Proceedings from the 29th Rutgers Guidance Conference. New Brunswick, N. J., October, 1972. (ERIC 074 398)
- Blocker, Clyde E., Plummer, Robert H., and Richardson, Richard C., Jr. *The Two-Year College: A Social Synthesis*. Englewood Cliffs, N. J.: Prentice-Hall, 1965.
- Borrow, Henry (ed.). *Man in a World at Work*. Boston: Houghton Mifflin Company, 1964.
- Borrow, Henry (ed.). *Career Guidance for a New Age*. Boston: Houghton Mifflin Company, 1973.
- Bottoms, Gene. "Some Basic Principles of Career Development Education," *Contemporary Concepts in Vocational Education*. Ed. Gordon F. Law. Washington, D. C.: The American Vocational Association, Inc., 1971.
- Bottoms, Gene. *Career Development Education K Through Post-Secondary and Adult Education*. Atlanta, Ga.: Georgia State Department of Education, Division of Vocational Education, 1972. (ERIC 062 580)

- Buros, O. K. (ed.). *The Seventh Mental Measurement Yearbook*. Highland Park, N. J.: Gryphon Press, 1971.
- Career Education: A Handbook for Implementation*. Baltimore, Md.: Maryland State Department of Education, 1972. (ERIC 062 521)
- Career Education Task Force. *Forward Plan for Career Education Research and Development*. Washington, D. C.: National Institute of Education, April, 1973. (ERIC 076 849)
- Carnegie Commission on Higher Education. *Less Time, More Options: Education Beyond the High School*. New York: McGraw-Hill Book Company, 1971.
- Carnegie Commission on Higher Education. *The Open-Door Colleges: Policies for Community Colleges*. New York: McGraw-Hill Book Company, 1970.
- Childers, B. E., and Nichols, Charles. *Postsecondary Career Education*. Raleigh, N. C.: Center for Occupational Education, N. C. State University at Raleigh, 1973.
- Cleary, T. Anne. "New Directions for Career Planning," *Essays on Career Education*. Portland, Oregon: Northwest Regional Educational Laboratory, 1973.
- Cohen, Arthur M. *Dateline '79: Heretical Concepts for the Community College*. Beverly Hills, Calif.: Glencoe Press, 1969.
- Cohen, Arthur M. and Brawer, Florence B. *Student Characteristics: Personality and Dropout Propensity*. Washington, D. C.: ERIC Clearinghouse for Junior Colleges, American Association of Junior Colleges, 1970.
- Cooley, William W. "Research Frontier: Current Research on the Career Development of Scientists," *Journal of Counseling Psychology*, Vol. 11, No. 1 (Spring, 1964), 88-93.
- Cooley, William W. and Becker, Susan J. "The Junior College Student," *Personnel and Guidance Journal*, Vol. 44, No. 5 (January, 1966), 464-469.

- Cox, Steven G. "Do Educational Measures Predict Vocational Success," *The Vocational Guidance Quarterly*, Vol. 19, No. 4 (June, 1971), 271-274.
- Cross, K. Patricia. "Higher Education's Newest Student," *Junior College Journal*, Vol. 39, No. 38 (September, 1968), 38-42.
- Cross, K. Patricia. *The Junior College Student: A Research Description*. Princeton, N. J.: Educational Testing Service, 1968.
- Cross, K. Patricia. *Beyond the Open Door*. San Francisco: Jossey-Bass, Inc., Publishers, 1971.
- Cross, K. Patricia. "The New Learner," *Change*, Vol. 5, No. 6 (February, 1973), 31-34.
- Cross, K. Patricia. "Occupationally Oriented Students," *ERIC Junior College Research Review*, Vol. 5, No. 3 (November, 1970).
- Daugherty, Ronald, Korb, Gus W., and Smiley, James. *Proceedings of the National Seminar for State Directors of Community-Junior Colleges*. Washington, D. C.: American Association of Junior Colleges, March, 1972. (ERIC 062-520)
- Deegan, William L., Elmgren, G. Theodore, Johnson, Milo, and Ray, Gordon. "Career Education, Progress, Proposals, and Problems," *Thrust*, Vol. 2, No. 3 (November, 1973), 4-7.
- Directory of American Association of Junior Colleges*. Washington, D. C.: ERIC Clearinghouse for Junior Colleges, American Association of Junior Colleges, 1971.
- Drucker, Peter F. *The Age of Discontinuity: Guidelines to Our Changing Society*. London, England: William Heinemann, Ltd., 1969.
- Ellena, William J. (ed.). *Curriculum Handbook for School Executives*. Arlington, Va.: American Association of School Administrators, 1973.
- Emerging Students . . . and the New Career Thrust in Higher Education*. Iowa City: The American College Testing Program, 1972.

- Emphasis: Occupational Education in the Two-Year College.*
Washington, D. C.: American Association of Junior
Colleges, 1966.
- Erickson, Erik H. *Identity, Youth, and Crisis.* New York:
W. W. Norton, 1968.
- Essays on Career Education.* Portland, Oregon: Northwest
Regional Educational Laboratory, 1973.
- Flanders, Russell. "Employment Patterns for the Seventies,"
Compact, Vol. 4, No. 4 (August, 1970), 7.
- Gleaser, George A. "Grades 7-14: An Action Plan," *Thrust*,
Vol. 2, No. 3 (November, 1973), 21-27.
- Gleazer, Edmund J. "The Community College Issue of the 70s,"
The Educational Record, Vol. 51 (Winter, 1970),
47-52.
- Goldhammer, Keith and Taylor, Robert E. *Career Education:
Perspective and Promise.* Columbus, Ohio: Charles E.
Merrill Publishing Company, 1972.
- Gordon, Edmund W. "Broadening the Concept of Career Edu-
cation," *Essays on Career Education.* Portland,
Oregon: Northwest Regional Educational Laboratory,
1973.
- Gorman, Anna A. and Clark, Joseph F. (eds.). *Implications
of Career Education for Teachers' Preparation.*
Proceedings of Sixth Annual Vocational and Technical
Teacher Education Seminar. Columbus, Ohio: October,
1972. (ERIC 074 206)
- Gottlieb, David. "Poor Youth Do Want to be Middle-Class but
It's Not Easy," *Personnel and Guidance Journal*,
Vol. 46, No. 2 (October, 1967), 112-116.
- Grede, John F. "The Role of Community Colleges in Career
Education," *Essays on Career Education.* Portland,
Oregon: Northwest Regional Educational Laboratory,
1973.
- Gribbons, Warren D. and Lohnes, Paul R. "A Five-Year Study
of Student's Educational Aspirations," *Vocational
Guidance Quarterly*, Vol. 15, No. 1 (September, 1966),
66-70.
- Hass, C. Glen, Wiles, Kimball, and Bondi, Joseph. *Readings
in Curriculum.* Boston: Allyn and Bacon, Inc., 1970.

- Havighurst, Robert J. *Human Development and Education*. New York: Longmans, Green and Co., 1953.
- Havighurst, Robert J. "Youth in Exploration and Man Emergent," *Man in a World at Work*. Ed. Henry Borow. Boston: Houghton Mifflin Co., 1964.
- Herr, Edwin L. and Cramer, Stanley H. *Vocational Guidance and Career Development in the Schools: Toward a Systems Approach*. Boston: Houghton Mifflin Company, 1972.
- Holland, John L. *The Psychology of Vocational Choice*. Waltham, Mass: Ginn and Company, 1966.
- Holland, John L. *Making Vocational Choices: A Theory of Careers*. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1973.
- Houston, W. Robert et al. *Developing Instructional Modules*. Houston: University of Houston, 1971.
- Hoyt, Kenneth B., Evans, Rupert N., Mackin, Edward F., and Mangum, Garth L. *Career Education: What It Is and How to Do It*. Salt Lake City: Olympus Publishing Company, 1972.
- Jencks, Christopher and Riesman, David. *The Academic Revolution*. New York: Doubleday and Company, 1968.
- Johnson, Rita B. and Johnson, Stuart R. *Assuring Learning with Self-Instructional Packages or Up the Up Staircase*. Chapel Hill: Self-Instructional Packages, Inc., 1971.
- Knoell, Dorothy M. and Medsker, Leland L. *From Junior to Senior College: A National Study of the Transfer Student*. Washington, D. C.: American Council on Education, 1965.
- Knoell, Dorothy M. *People Who Need College: A Report on Students We Have Yet to Serve*. Washington, D. C.: American Association of Junior Colleges, 1970.
- Kraft, Richard H. P. *Perspective on Progress: Career Education in Florida*. Statewide Evaluation of Vocational-Technical Education. Tallahassee, Fla.: Florida State University, 1971. (ERIC 056 235)
- Krippner, Stanley. "The Educational Plans and Preferences of Upper Middle-Class Junior High School Pupils," *Vocational Guidance Quarterly*, Vol. 13, No. 4 (Summer, 1965), 257-260.

- Law, Gordon F. (ed.). *Contemporary Concepts in Vocational Education*. Washington, D. C.: The American Vocational Association, Inc., 1971.
- Lipsett, Laurance. "Social Factors in Vocational Development," *Personnel and Guidance Journal*, Vol. XL, No. 5 (January, 1962), 432-437.
- McInnis, N. F. "Students Area a Lot Like People," *Junior College Journal*, Vol. 38, No. 6 (March, 1968), 40-43.
- McMahon, Gordon G. *Curriculum Development in Trade and Industrial and Technical Education*. Columbus, Ohio: Charles E. Merrill Publishing Company, 1972.
- McMurrin, Sterling M. "Toward a Philosophy for Career Education," *Essays on Career Education*. Portland, Oregon: Northwest Regional Educational Laboratory, 1973.
- Maloney, W. Paul and Helzallah, Ibrahim M. *Career Education: The Student in Focus*. Fairfield, Conn.: Fairfield University, Graduate School of Education, 1972. (ERIC 075 625)
- Marland, Sidney P., Jr. *Career Education and Community College Leadership*. Presentation at installation of President of Quinebaug Valley Community College, Woodstock, Conn., April, 1972a. (ERIC 067 475)
- Marland, Sidney P., Jr. "Career Education Now," *Career Education: Perspective and Promise*. Columbus, Ohio: Charles E. Merrill Publishing Company, 1972b.
- Marland, Sidney P., Jr. "Career Education - More Than a Name," *Education Yearbook 1972-73*. New York: The MacMillan Company and the Free Press, 1973.
- Medsker, Leland L. *The Two-Year College in America*. New York: McGraw-Hill, 1970.
- Medsker, Leland L. and Tillery, Dale. *Breaking the Access Barrier*. New York: McGraw-Hill, 1971.
- Meyer, Sharon. *Career Education: A Position Paper*. Lincoln, Nebraska: Nebraska State Department of Education, 1972. (ERIC 069 858)

- Micheels, William J. "Career Education at the Postsecondary Level: A Mission for the Four-Year Colleges," *Essays on Career Education*. Portland, Oregon: Northwest Regional Educational Laboratory, 1973.
- Moore, William, Jr. *Against the Odds: The High-Risk Student in the Community College*. San Francisco: Jossey-Bass, Inc., Publishers, 1970.
- Monroe, Charles R. *Profile of the Community College*. San Francisco: Jossey-Bass, Inc., Publishers, 1972.
- Moynihan, David P. "Morality of Work and Immorality of Opportunity," *Vocational Guidance Quarterly*, Vol. 12, No. 4 (Summer, 1964), 229-236.
- Occupational Outlook Handbook 1972-73 Edition*. Washington, D. C.: U. S. Department of Labor, Bureau of Labor Statistics, 1973.
- Osipow, Samuel H. *Theories of Career Development*. New York: Appleton-Century-Crofts, 1968.
- Pautler, Albert J., Jr. *Infusing Career Education in the Curriculum*. Washington, D. C.: U. S. Office of Education, 1973. (ERIC 073 325)
- Pearson, Richard. "Admission to College," *Universal Higher Education*. Ed. Earl McGrath. New York: McGraw-Hill Book Company, 1966.
- Permaul, Jane. "Is There a Role for Career Education in Colleges and Universities?" *Educational Horizons*, Vol. 51, No. 4 (Summer, 1973), 184-186.
- Pucinski, Roman C. and Hirsch, Sharlene P. (eds.). *The Courage to Change: New Direction for Career Education*. Englewood Cliffs, N. J.: Prentice Hall, Inc., 1971.
- Resources for Career Development*. South Bend, Indiana: Indiana Career Resources Center, 1972.
- Reynolds, James W. "Needed Changes in Community Colleges," *Universal Higher Education*. Ed. Earl McGrath. New York: McGraw-Hill, 1966.
- Roth, Robert M., Hershenson, David B., and Hilliard, Thomas. *The Psychology of Vocational Development*. Boston: Allyn and Bacon, Inc., 1970.

- Roueche, John E. *A Modest Proposal: Students Can Learn*. San Francisco: Jossey-Bass, Inc., Publishers, 1972.
- Sanford, Nevitt. *Where Colleges Fail: A Study of the Student as a Person*. San Francisco: Jossey-Bass, Inc., Publishers, 1967.
- Sampieri, Robert A. "Comprehensive Career Education Model," *Thrust*, Vol. 1, No. 5 (April, 1972), 10-14.
- Schmeiding, O. A. and Jensen, Shirley F. "American Indian Students: Vocational Development and Vocational Tenacity," *Vocational Guidance Quarterly*, Vol. 17, No. 2 (December, 1968), 120-123.
- Shoesmith, Theodora and Zant, John. "Getting It Together - Elementary High School, Junior College Career Curriculum," *Thrust*, Vol. 2, No. 3 (December, 1972), 9-14.
- Skaggs, Kenneth G. "Occupational Education: The Program Crises," *Community and Junior College Journal*, Vol. 43, No. 8 (May, 1973), 11-12.
- Stevic, Richard and Uhlig, George. "Occupational Aspirations of Selected Appalachian Youth," *Personnel and Guidance Journal*, Vol. 45, No. 5 (January, 1967), 435-439.
- Super, Donald E. *The Psychology of Careers*. New York: Harper & Row Publishing Co., 1957.
- Super, Donald E. "Vocational Development Theory: Persons, Positions, and Processes," *The Journal of Counseling Psychologist*, Vol. 1, No. 1 (1969), 2-9.
- Super, Donald E. "Vocational Development Theory: Persons, Positions, and Processes," in *Perspectives on Vocational Development*. Eds. Whiteley, John H. and Resnikoff, Arthur. Washington, D.C.: American Personnel and Guidance Association, 1972.
- Swanson, Gordon I. "Career Education," *Career Education: Perspective and Promise*. Columbus, Ohio: Charles E. Merrill Publishing Co., 1972.
- Taylor, John E., Montague, Ernest K., and Michaels, Eugene R. *An Occupational Clustering System and Curriculum Implications for the Comprehensive Career Education Model*. Alexandria, Va.: Human Resources Research Organization, 1972.

- Taylor, Robert E. *Perspectives on Career Education*. Presentation at the meeting of the Oregon Association of School Administrators. Corvallis, Oregon, 1972. (ERIC 064 479)
- Thompson, John F. *Foundations of Vocational Education: Social and Philosophical Concepts*. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1973.
- Thornton, James. *The Community College*. 3rd Ed. New York: John Wiley and Sons, 1972.
- Toffler, Alvin. *Future Shock*. New York: Random House, 1970.
- U. S. Office of Education. *Career Education*. Washington, D. C.: U. S. Government Printing Office, 1972.
- U. S. Office of Education. *A Guide to Career Education*. Washington, D. C.: U. S. Government Printing Office, 1972.
- Venn, Grant. "Career Education in Perspective: Yesterday, Today and Tomorrow," *NASSP Bulletin*, Vol. 57, No. 371 (March, 1973), 11-15.
- Vestal, Theodore M. *An Analysis of Fifteen Occupational Clusters Identified by the U. S. Office of Education*. Austin, Texas: Texas Education Agency, 1972. (ERIC 067 474)
- Whiteley, John M. and Resnikoff, Arthur (eds.). *Perspectives on Vocational Development*. Washington, D. C.: The American Personnel and Guidance Association, 1972.
- Willers, Jack C. *Career, Culture and Consciousness: A Study of the Social and Theoretical Bases of Career Education*. Washington, D. C.: Office of Education, February, 1972. (ERIC 074 304)
- Worthington, Robert M. *Career Education and the Community College*. Speech presented at the National Seminar for State Directors of Community-Junior Colleges. Columbus, Ohio, 1972. (ERIC 066 610)
- Worthington, Robert. "Why Career Ed?" *Thrust*, Vol. 1, No. 5 (APRIL, 1972), 9.

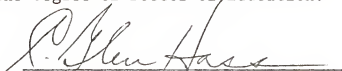
BIOGRAPHICAL SKETCH

Helen Virginia McLean was born July 23, 1933, in Southern Pines, North Carolina. In June, 1950, she graduated from Binghamton Central High School, Binghamton, New York. She received the Bachelor of Arts degree from North Carolina Central University, Durham, North Carolina, in June, 1954, with a major in French and a minor in education. In June, 1956, she received the Master of Arts degree from the University of Pennsylvania, Philadelphia, Pennsylvania, with a major in French.

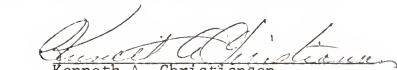
Miss McLean has taught foreign languages and remedial, compensatory courses at Wilberforce University, Gibbs Junior College, and St. Petersburg Junior College. In 1972, she received a sabbatical leave from the position of Chairman, Department of Directed Studies, Clearwater Campus, St. Petersburg Junior College, and began doctoral studies at the University of Florida as an EPDA Fellow. In 1973, she received a grant from the Tangley Oaks Foundation.

She is a member of Pi Lambda Theta, Association for Supervision and Curriculum Development, Florida Association for Supervision and Curriculum Development, Curriculum and Instruction Association and the American Association of Community and Junior Colleges.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Education.


C. Glen Hass, Chairman
Professor of Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Education.


Kenneth A. Christiansen
Professor of Communications

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Education.


James L. Wattenbarger
Professor of Educational Administration

This dissertation was submitted to the Graduate Faculty of the College of Education and to the Graduate Council, and was accepted as partial fulfillment of the requirements for the degree of Doctor of Education.

June, 1974


Dean, College of Education

Dean, Graduate School